TELEPHONE TOPICS



New York, Dec. 23, 1921.

M. B. JONES,
President,
New England Telephone and Telegraph Company,
Boston, Mass.

At the conclusion of another year of problems and accomplishments, we send our greetings to you and the loyal band of workers following your leadership. We hope that the coming year may be a happy and prosperous one for you individually and collectively, and that the progress toward the standard of public service and public and company relations which you have made your goal may be steady and sure.

H. B. THAYER
J. J. CARTY
BANCROFT GHERARDI
W. S. GIFFORD
N. T. GUERNSEY
E. K. HALL
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TELEPHONE TOPICS

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WANT to say a word of appreciation of the way in which our people rose to the emergency created by the sleet storm of November 27, 28 and 29. It was a splendid demonstration of the significance of our slogan—"Service First."

One must travel over that part of our territory embracing all of Western and Eastern Massachusetts, Southern Vermont and New Hampshire, and a large part of Rhode Island, to get even a vague conception of the extent of the damage to us.

Thousands upon thousands of trees have lost their heavy branches and, as a soldier expressed it, remind him of an Argonne forest after German shell fire. These fallen branches carried down mile after mile of pole lines supporting toll and local circuits, and thus cut off, for the time being, scores of communities from all wire connection with the outside world.

No ordinary repair methods would suffice in such an emergency. It was necessary to build entirely anew, after cutting away the old wreckage, and, as a first step, to lay thousands of miles of rubber-covered wire on the ground in order to give emergency toll service between these isolated communities and the rest of the world. Next comes the job of reconstruction, now under way, but which can not be completed for months.

I want to commend the intelligence with which new toll routings were planned and the whole-hearted enthusiasm with which construction men applied themselves to the restoration of service.

I want to acknowledge the versatile diligence of traffic forces in somehow managing to complete toll calls, notwithstanding a badly crippled plant.

I know, also, that this disaster involved the Commercial and Accounting Departments in considerable additional effort, all of it fine and commendable.

My purpose in writing this is not to appraise and award credit for service rendered, but to give expression to fresh admiration for the spirit of this great organization of ours, as expressed in this emergency, and for its splendid and most effective teamwork. It signalizes the closing of a year of effective service for the public and, I like to think, it auspiciously starts a new year that will be not less effective.

MATT B. JONES, President.

Some Storm!

Thousands of Poles and Thousands of Miles of Wire Destroyed as Ice Storm Swept Our Territory. Service First Wins Again.

THERE have been storms, some more storms and still some more storms, that have affected our lines since this Company of ours began business, but even the oldest of the old-timers cannot recall anything that was as disastrous as the storm that swept across the middle of Massachusetts, the southern corner of New Hampshire and a large section of Rhode Island on November 27th,

28th and 29th. The storm damage will cost our Company more than \$1,500,000 and it will be weeks before the work of restoring broken poles and lines will be completed, despite recordbreaking work by the Plant forces.

The storm will be remembered for a long time as one of the greatest tests to which our slogan-"Service First" -has ever been put. Trees uprooted, poles down, lines broken and twisted-it was indeed a weird sight to those who travelled through our territory during those three eventful days, and for many days following the storm. This storm was not a snow storm; it was not a sleet storm and it was not a wind storm-it was an ice storm, and ice from 21/2 to 4 inches thick formed on the wires, causing

them to sag and, in many cases, eventually break, laying more than 100,000,000 feet or 20,000 miles of wire, nearly enough to girdle the earth, dead and useless on the ground, together with more than 8,000 broken telephone poles in all sections affected by the storm. Highways and byways were blocked with fallen telephone poles, broken and twisted trees and branches of trees making detours necessary on many of the important roads from Boston to Lowell, Worcester, Springfield and other places.

Toll and local lines were down in every direction. In the Metropolitan Division thousands of subscribers' lines were put out, as the weight of the ice on the wires caused them to break. Were it not for the cable connecting Boston with New York, which is under ground and which was not affected, Boston would have had no telephone connection with its sister city. All overhead lines between these two places were destroyed. Had this storm been accompanied by a high wind, the damage would have been a great deal worse,

but it was bad enough as it was and we do not want another.

A word picture cannot adequately describe the conditions as our men found them when they started to repair the damage. But look at the pictures in this issue of Telephone Topics and you will have some idea of what happened. The combined weight of the ice on the wires in all sections affected was millions of tons. Under this strain even the strongest pole lines could not stand.

It is such storms as this that test the mettle of the Plant forces and to them is due the greatest credit for their work, night and day, in restoring telephone service. More than 3,000 men were engaged in restoring this service. Crews of linemen and repairmen were imported from

Maine, New Hampshire, Vermont and from other telephone companies, the Southern New England, the New York Company, and the Pennsylvania Company. Every available man who could be spared was rushed from these places to relieve the situation here in New England.

It is an ill wind that blows no man any good. Because of the storm our Company was able to relieve the unemployment situation to some extent by taking on temporarily over 1,000 unskilled men, to do salvage work, dig post holes and assist in stringing wire.

With so many poles and wires down, scores of cities and towns were completely isolated from





MANY SECTIONS OF RHODE ISLAND LOOKED LIKE THIS



NOT SHELL TORN FRANCE —THIS IS WORCESTER

A scene in the residential section of Worcester about half a mile from the Worcester City Hall, Tree limbs broken and twisted fell on our local and toll lines and created havoc with our service.

communication with surrounding communities. Our first job was to restore service—temporarily, if necessary, but restore it. With that thought in mind, Plant men established the greatest record ever made in our Company. Wires were strung along roads, on fences and trees, until such time as new poles could be secured and placed in the ground.

From Boston to Worcester and from Boston to Portland we had our worst condition. Along the Massachusetts Central Railroad several hundred poles were down, including the transcontinental circuit from Boston to San Francisco. With direct toll lines practically destroyed, it was a problem to give toll service, but this was overcome, to some extent, by re-routing toll lines. Within a few hours after the Boston to Portland direct lines had been destroyed, a routing was established by way of Rochester and North Conway, N. H., a Boston to Springfield line by way of Boston and Hartford, a Worcester to New York line by way of Boston to New York under ground. These are typical of many round-about routings as substitutes for direct toll service.

"SERVICE FIRST"

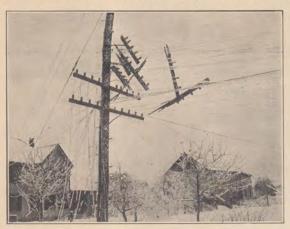
The splendid devotion to service and the loyalty to our Company was never more ably demonstrated than during the days of the storm and the days following by plant men of the New England Telephone and Telegraph Company. They worked night and day, often working by lantern light as they dug post holes, reset poles and strung wire. Two men, perhaps, stand out more prominently than all the rest, and they are John C. Kilday and George W. Booth of the General Plant force. As supervisor of supplies, it was Mr. Kilday's job to secure new material in order to restore service. This job was put up to him and, as usual, he made good. Working night and day in his office, at 50 Oliver Street, he shipped to all sections of the affected territory thousands of crossarms, hundreds of poles, thousands of miles of wire. It was not an uncommon thing for him to receive from 200 to 300 telephone calls a day and make a decision on each one.

To Mr. Booth was given the job of supervising the general restoration of service. He and his



IN SOME PLACES AS FAR AS THE EYE COULD SEE, POLES WERE DOWN Worcester suffered severely from the storm, as witness this picture taken of Stafford Street, near Ludlow Street, Worcester

force mapped out a definite program and concentrated their efforts to carry that program through.



COMMON SCENES
Such scenes as this were common in many sections of Massachusetts.
Toll Section 53, Pleasant Street, Dracut, Mass.

When we know that now, as this is written, service is fast coming back to normal, we can realize that Mr. Booth and his force did their job and did it well.

Hundreds of cases, where men worked all day and with a few hours' rest went out again to work, at midnight, have been reported all over the territory. To illustrate, here is a typical instance reported from Haverhill: Combination man, named Coleman, went to work at 3 o'clock in the morning. About 12 hours later we asked him to go to Brandy Brow, about three miles from Haverhill, and connect five Boston to Portland circuits. With no supper, his "flivver" broken, he worked on a pole



"NOW ALL HEAVE"
Clearing the highway where the main line came down in the Western division

by the light of a lantern, until 9 P. M., when the job was done. That was the spirit of service shown in every section.

The Western Electric Company, under the direction of Manager Holmes and Stores Manager Symons, did a wonderful job in furnishing the material ordered by Mr. Kilday. They left no stone unturned to see that orders were filled

promptly and to see that the right material was shipped in every case. To them, as to others, we say, "Well done!"

As a side light: In practically all sections, electric light, police and fire alarm systems were destroyed. When the electric lines broke, in many cases it completely cut off our central offices, and here again was another emergency. Delco charging machines were installed in many places, set up in backyards when necessary and connected so that the charging of the batteries could go on and local telephone service might be maintained. Without fire and police signals, the public



PUZZLE—FIND THE POLE

An idea of what we were up against in restoring service.

Pole 1545 on Toll Section 70, near Chester, Mass.

naturally relied upon telephone service, and here again we were able to deliver and "carry on" when all other means of communication were destroyed

Too much praise and too much credit can not be given to those who helped in restoring service during the greatest storm we ever knew. Each one working together accomplished the splendid result. Of their work and of the record made by



DOWN AND OUT, BUT ONLY TEMPORARILY Toll Section 70, near Chester, Mass.

Plant men, employees of the New England Telephone and Telegraph Company, stockholders of the New England Telephone and Telegraph Company and patrons of the New England Telephone



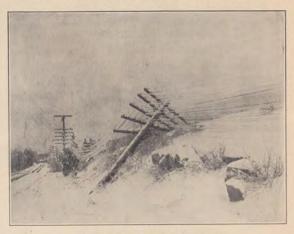
MELROSE

A beautiful tree weighed down by sleet and snow, broke, and the branches fell on some of our local lines and the Melrose-Malden cable, putting them all out of commission.

and Telegraph Company have a right to be justly proud—they did a wonderful job.

WESTERN DIVISION

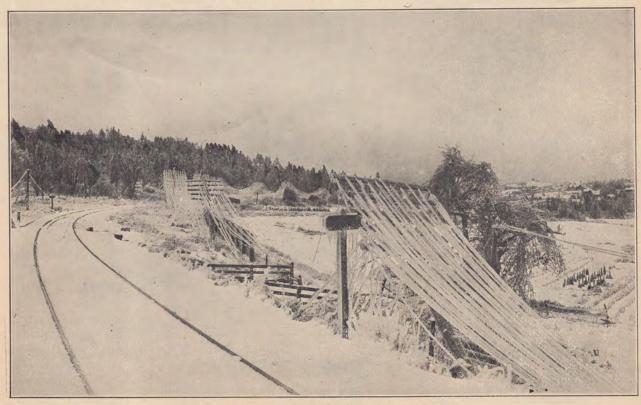
"Down and out" seemed to be the favorite words of Plant men in reporting trouble in the Western division after the storm. Worcester was, perhaps, affected worse than any other section. There was no telephone toll service from Worcester except by means of underground. All overhead



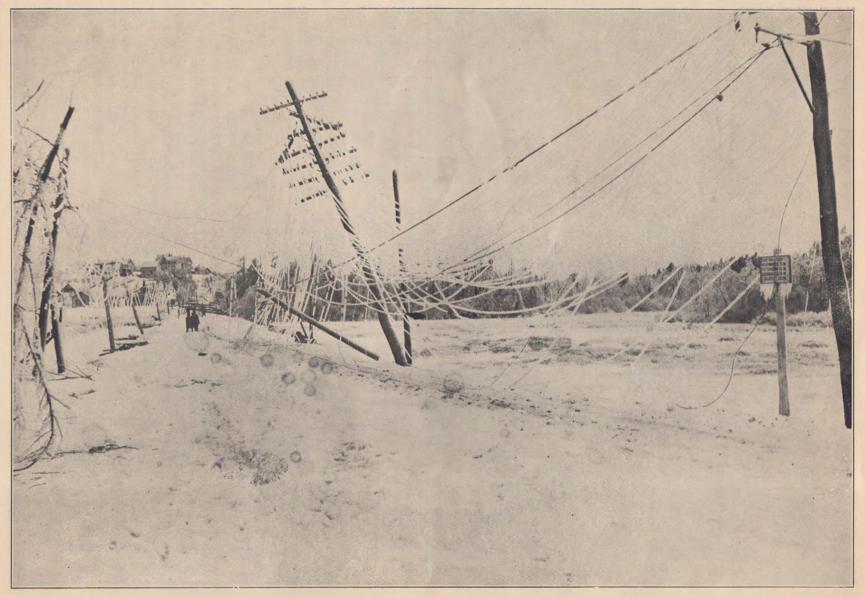
IN THE WAKE OF THE STORM

Toll Section 9, Tyngsboro Road, near the entrance to the Vesper Country Club.

wires in all directions were destroyed. Lines to Springfield, Providence, Webster, New London, Gardner, Pittsfield, North Adams, Clinton, Ayer, and in every other direction where there was open wire, were reported as "gone." Perhaps the most graphic picture of the entire storm in the Western



NEAR THE NORTH WORCESTER RAILROAD STATION
Toll Section 56, carrying lines to Springfield, Albany, and the West, weighted down with ice.



THE STORM DESTRUCTION TO OUR LINES WAS STATE WIDE A scene in South Gardner, Mass., where Toll Section 68X was destroyed.

division can be secured by a glance at the opposite page of this edition. The ice on these poles, photographed at the Summit, near Worcester, weighed from three to five pounds to a foot, and was more than three inches thick.

Division Superintendent of Plant Tasker and his force "carried on" and established, as did other sections of the territory, a record that will go down in history, aided by Plant forces from Vermont and Maine. Many American Company lines were destroyed in the Western division and our men, working with American Company Plant forces, helped restore service for the Bell System.

RHODE ISLAND DIVISION

A three-day storm of intermittent rain and sleet caused heavy damage in many parts of the State and seriously crippled our service. Commencing with a downpour that lasted all day Sunday, November 27th, and continuing throughout Monday and Tuesday, the storm took increasing toll until Wednesday morning dawned fair and we faced a total of 550 poles down and approximately 5,500 stations out of service.

On Sunday evening the rain turned to sleet and about 3 o'clock, Monday morning, November 28th, we began to lose service in both the Woonsocket and Pascoag exchanges. By noon all trunk service between Pascoag and Providence, Pascoag and Woonsocket and all trunk routes out



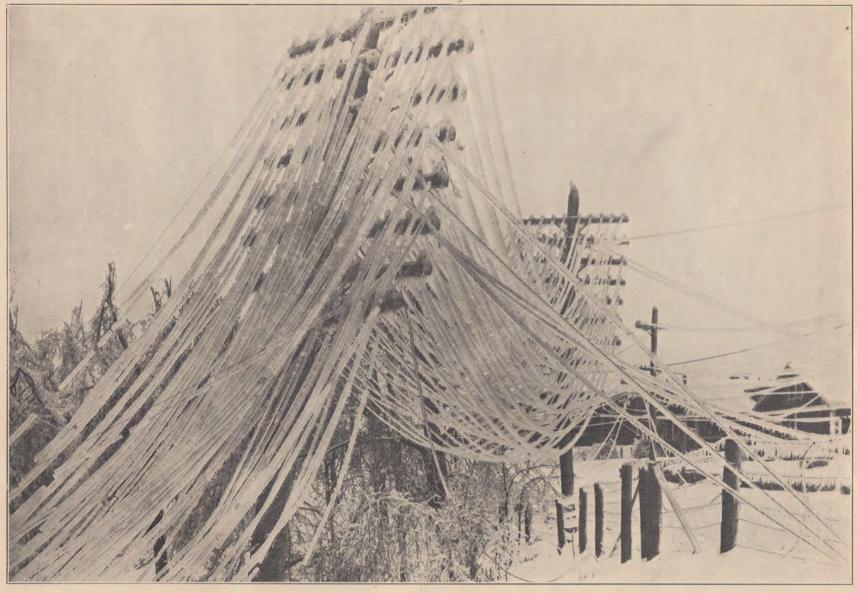
 $\begin{array}{c} {\rm A\ TANGLED\ MASS\ OF\ RUIN} \\ {\rm One\ pole\ on\ Toll\ Section\ 6,\ Boston\ to\ Worcester,\ near\ Natick.} \end{array}$

of Woonsocket with the exception of the trunk cable route between Providence and Woonsocket had



NOTE THE SAGGING WIRES

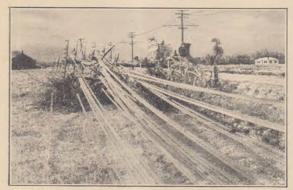
Before service on these lines near Gardner, Mass., could be restored, all these lines had to be made taut and in many places new wires strung.



AT THE SUMMIT, WORCESTER, MASS.

Ice 2½ to 4 inches thick formed a coating on telephone, electric light and telegraph lines, causing them to sag and eventually break.

failed. The rain and sleet continued off and on during Monday and were very bad during Tuesday. Poles were reported down in various parts of Woonsocket and Pascoag and gangs were started out to clear the wreckage from highways. These gangs ran into all kinds of difficulties in



Near Natick where poles were snapped as if they were twigs.

removing the wreckage on account of wires at various points being crossed with electric light wires and trolley wires.

Tuesday was a day that will be remembered by all employees who had occasion to work outside. The downfall was very penetrating and no one could work in it for even a short time without becoming entirely soaked. Several of our gangs clearing wreckage from the road, after having cleared some of the trouble ahead of them, found themselves packed in again by new wreckage in the road and had considerable difficulty in getting back to headquarters late at night.

The main trunk lines from Providence to Pascoag had poles down in various places from just south of Glendale to Pascoag, some places practically blocking the road. On a local line from Chepachet to Pascoag there were about 25 poles left standing out of a run of 107, blocking the highway between these points.

On the Providence-Summit line, poles were down in several places between Pawtucket and Grants' Mills, and following that point towards



"PUTTING 'EM BACK"
Foreman Brunt and plant men at South Gardner, Mass.



"SERVICE FIRST"

Plant men at work restoring service on broken lines between Stoneham and Woburn. In snow, sleet and rain our slogan "Service First" helped Plant men "carry on."



THOUSANDS OF POLES IN OUR TERRITORY WERE DOWN AFTER THE STORM

These poles carried our circuits from Worcester to Springfield in addition to many local lines in the vicinity of Stafford Street, Worcester.

Woonsocket, approximately 150 poles in one stretch were down, taking the main wires to Worcester. On this same line, north of Woonsocket, there were several poles down. On the Louisquissett Pike trunk route, between Providence and Woonsocket, there were poles down across the highway in several places.

On Tuesday night, we were all set to have practically our whole plant wrecked in the entire state and only the weather turning warm during the night and clearing, the sun coming out on Wednesday morning and melting the ice, saved us from a complete wreck. The coating of ice on the wires and trees varied from about 1½ to 2¼ inches in diameter. A great deal of our trouble was caused by trees being taken over by the weight of ice and falling on our poles and wires, breaking them down. Not only were limbs and branches broken, but many huge trees were uprooted or broken off.

During the evening of Saturday, December 3rd, a trolley span broke in Harrisville, allowing it to fall across our cable and lay on the cable all night. When this happened the two temporary trunk circuits which had been established between Woonsocket and Pascoag were burned out, so that this trouble could not be reported. Our men found this condition on Sunday morning and found that the Pascoag exchange had been practically put out of business, only two telephones remaining in service. Cables were burned off in several places,

a large hole burned in the underground, and a cable burned between the switchboard and frame. Several cables in Woonsocket, at various points, were burned off due to electric light or trolley burns.

Our main efforts were and are being devoted to rebuilding our toll lines, although the work on local distribution was also rushed.

On December 9th, it was estimated that the Providence-Pascoag toll line would be finished in about 10 days or two weeks; the Woonsocket-Pascoag toll line in one week and the Louisquissett Pike in about three days. The Providence-Summit line was at that time already completed from Woonsocket to Millville. All told, tremendous expense as well as individual and collective personal effort are occasioned by such storms, which, fortunately, occur but rarely.

The cost of repairing the damage would make one comfortable for life if wisely invested. Public utility corporations are often misjudged because of the large surplus or reserve they carry, but instances like these illustrate the necessity for such action.

When one storm can cost us an amount the equal of which almost any business would be glad to earn in a year, we begin to realize the necessity of maintaining a reserve with which to pay the heavy cost of restoring service



STORM DAMAGE AT WORCESTER
Hundreds of poles in this locality were made useless, and new poles are being set by our forces.



MILFORD, MASS.

Through highways and byways the storm swept on, breaking down our lines and poles as it went.



NORTH ANDOVER
Near Osgood Street crossing, looking north.

EASTERN MASSACHUSETTS DIVISION

The entire Lowell district, including the Framingham area, the western portion of the Salem



Just one of the many storm damages we had to repair in Lowell district and a small section of the northwestern part of the Brockton district, were the areas

affected by the storm of November 27th and 28th in the Eastern Massachusetts Division. More than 4,500 poles had to be replaced, a large number of which were poles carrying toll lines where a great number of open wire circuits held the sleet and thus weighed down, broke the poles.

Especially serious breaks occurred on Toll Section One at the Newburyport Turnpike, where approximately eight miles of poles were down. On Toll Section 13, between Danvers and Lawrence, about 350 poles fell. On Toll Section 12, the western route between Boston and Portland, there were several half-mile and mile breaks. From Burlington to North Chelmsford, on Toll Section Nine, every pole was down. About five miles of poles were down through Concord and Acton. Toll Section Six, Boston to Worcester route through Framingham, was practically wiped out, and between Milford and Norfolk there were several mile-long breaks. It has been estimated that approximately 4,200 subscribers in the Eastern Massachusetts Division were affected by the storm and were without service for a few days. Relieving Plant forces were put to work in the affected sections and within a few days gang after gang of construction men were sent to the aid of the over-worked forces in the Lowell and Framingham sections.

The work of restoring service on toll lines can be illustrated as follows: First a few circuits were made good by the use of paired wire temporarily placed, and after that the toll lines were to be rebuilt and permanent restoration of service affected by use of the open wire.



WHAT THE WORST STORM IN TELEPHONE HISTORY DID NEAR FRAMINGHAM Note the twisted crossarms and sagging wires on which rested ice-covered tree limbs.



A detour was necessary on Green Street, Woburn, because fallen telephone poles blocked the street.

Many instances occurred of what in war-time would be called "heroism," but which, in such an emergency as this, may be termed "devotion to duty." Men worked from before dawn until long after dark, in order that service, both toll and local, might be restored. It will be some time before the plant in this division, damaged by the storm, is permanently restored, owing to the fact that the enormous weight of the ice so sagged the wires that even those that did not go down must be pulled up to eliminate the slack, and in hundreds of cases either new wire or cable must be placed.

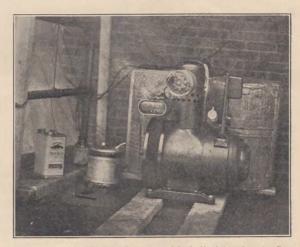


JUST ONE OF MANY
This pole carried our Boston to Worcester circuits. West of
Framingham Junction, twelve poles like this were blown down.

METROPOLITAN DIVISION

In the recent storm, which caused so much damage to our local, and toll lines, there was one phase of the trouble, with which we had to contend, that was not evident to the general public.

We lost thousands of lines in the Metropolitan Division, and also the outside power, which is used to run machines for charging storage batteries, in 24 exchanges. In 15 of these exchanges, we were able to maintain the storage batteries by means of the gas engine auxiliaries but in the other nine of this division and about ten in other divisions, the storage batteries were saved only through the loyal



Without this we would have been out of luck for fair, when 24 Central offices lost all power, when the electric light lines went out. These emergency Delco charging machines were immediately put into use and service maintained. Many of them were "set up" in back of the exchange in the yard.

and untiring efforts of a small group of men from the Equipment Department.

The work which they did is worthy of the highest commendation, and stands out as one of the great accomplishments of the Plant force.

On Monday morning, when it was known that the outside wires were down, and that it would probably be several days before the power companies could restore service, immediate steps were taken to prevent the loss of the storage batteries.

We had on hand, at Allerton Street, one 100-ampere Delco; one 25-ampere Delco; and one old two-cycle gasoline engine. There was also, in the

Western Electric Company's South Boston storehouse, the Delco which had been used at Camp Devens, during the war.

The first machine was sent to Wellesley, in charge of "Jere" Fouhey, on Monday morning, and he, with the help of Harry Sluman, of the



LOWELL Local Lines on Watson Street destroyed by the storm.

equipment, and Ralph Hunter, of the Needham maintenance force, kept the machine going in Wellesley in the day time, and Needham at night, until Wednesday, when temporary service was given by the power company.



HAVERHILL Foreman Hardy and Crew repairing breaks in the toll lines.

Willard Clark loaded the Camp Devens Delco on a truck, going to Woburn on Monday, and with Harold Rice, worked night and day, until Thursday in Woburn, and until Saturday in Stoneham. They slept with the machine as it required constant attention to keep it going, in the yard, back of the exchange.

Fred Gardner took the 100-ampere Delco to Brookline, Monday, charged the No. 2 batteries, and started, at eleven Monday night, for Framingham, where he spent part of Tuesday. He then went to Hudson, Marlboro and Concord, charging the batteries in each place, returning to Boston, Thursday. In some places the roads were so filled with broken trees that it was necessary to detour into the fields, in order to pass. The ride from Brookline to Framingham was a wild one.

Two new Delco outfits were procured.

George Hutchinson went to Franklin and Southbridge with one, and Thomas F. Campbell took the other to Gardner, Clinton and Leominster.

The two-cycle machine did duty at Andover, and later went to Wakefield, where "Amie" Nevins and the local force had maintained the exchange by means of the "Carrier" battery and emergency automobile batteries.



Not even a crossarm was left on Toll Section 6, near Natick.

"Bert" Long and A. E. Nevins did great work in maintaining Lexington and Lincoln, with automobile batteries.

Concord had no trunks, and it was necessary for "Bert" Long to go over the road, in a machine, to find out how the batteries were standing up. He connected up a set of automobile batteries on the No. 2 string, which held up till the Delco arrived.

A good job was done in rewiring temporary leads from the new to the old Brighton building, to provide temporary lights and power.

As the Fire and Police service was in a crippled condition in most of these towns, it was necessary to resort to the telephone for this service.

We did not lose an exchange, and some idea of the work which was done can be had when it is realized that these charging outfits had to be operated out in the open, in the rain in some cases, and



A CLOSE-UP
One of the broken poles on Winn Street, Woburn, showing the icc-covered wires and cables.



were trucked from one exchange to another at night, over unlighted roads, that were filled with broken trees, and tangles of wires.

The story of any one man's work would apply to all, and is one of unselfish devotion to "Service

First.'

THE MIDNIGHT RIDE OF W. P. CLARK.

(With Due Apologies)

Out from the North, at break of day, The office got word that the storm held sway; All power had failed; Woburn was first; "Bill" Clark just said, "Let it do its worst."

He grabbed the Delco, and on his way, Was just in time to save the day. He stayed right with it, both day and night, The rain and sleet made a terrible fight.

The Delco kicked, and snorted, and tore, But "Bill" just worked and silently swore. He had Woburn O. K., when he got the word That Stoneham would shortly go by the board.

Then onto the truck, with the Delco inside, He made for that town, on a wild night ride. The batteries were low, but not for long, "Bill" soon had the Delco singing its song.

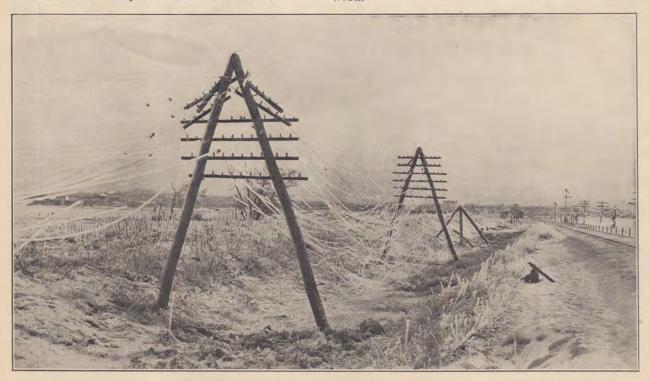
He stayed with Stoneham a couple of days, The stunt that he pulled was worthy of praise. Of the work that he did, all that week, Like the rest of the boys, he's too modest to speak.

Over thirty exchanges had lost their power, But at each one was the "Man of the Hour." They charged each battery, and slaked its thirst, The work that they did was for "Service First." The Malden, Newton, Brookline, Stoneham, Cambridge plant units were most affected by the storm. In the Malden District approximately 22,000 subscribers experienced trouble, generally as the result of broken line or drop wires.

In the Newtons, hundreds of trees and limbs of trees fell, bringing down our lines, and in Wellesley 22 poles, carrying the Boston to Worcester toll circuits, 30 open coppers and two large cables, were destroyed. In many sections of the West Newton district, the wires stretched to the ground before breaking, and, with here and there a pole down, it made an indescribable mess for the repair crews. Only the fact that for two days after the storm we had seasonable weather, and the sun's rays melted the ice on our wire, prevented much greater loss.

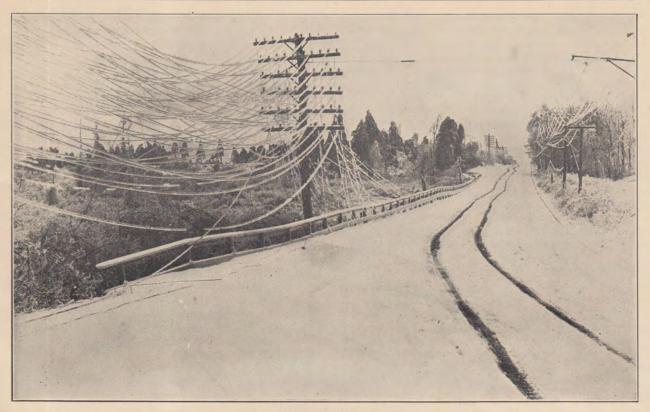
In the Waltham unit our greatest trouble was due to falling limbs. No electric light power was available in Waltham, Lexington or Lincoln exchanges. In the Waltham office it was necessary to run the gas engine for 24 hours a day for five days to charge the batteries. The same condition existed in Lincoln for four days. In Lincoln our men assisted the town officials in clearing away broken limbs and trees from the streets.

In Brookline the principal damage was to local lines and on November 27th, the streets were littered with broken trees and tangled wires, but the Brookline unit force did an exceptionally good job in restoring service in short order, which caused many subscribers to write letters of appreciation of their work.

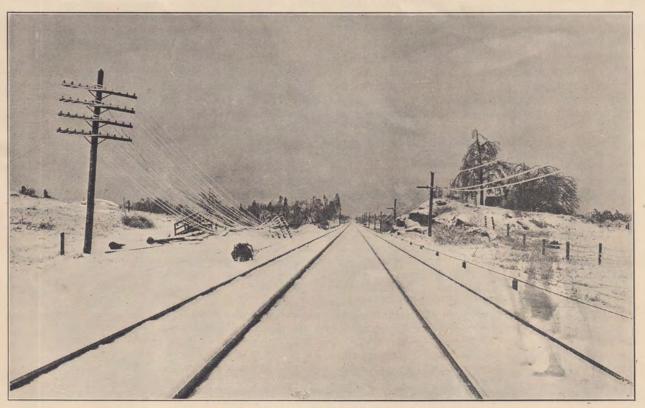


SEEN ALONG THE RAILROADS

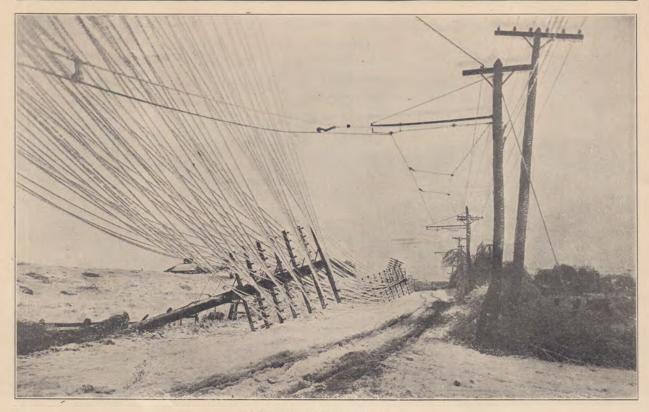
A fixture 10,992 between North Cambridge and Hills Crossing. The top arms carried A. T. & T. Co. circuits, and the rest New England lines.



 $\label{eq:Westminster} Westminster, \ {\tt Mass}.$ Toll service was completely destroyed by the storm in this section.



TELEPHONE AND TELEGRAPH LINES SUFFERED ALIKE Toll Section 11-B on the Boston & Maine Railroad near Lowell.



ALONG THE NORTH SHORE LINE
Corner of Turnpike and Middle Street, Newbury, Mass., looking north toward Newburyport.

Clearing away broken trees, resetting telephone poles and guying what few poles were standing in some sections of Cambridge, was the job of the Cambridge plant force. Many instances were observed where pole lines were about to fall and were saved by guying. In one case a crew arrived at a location where only quick work on the part of two men with pikes saved a pole which was slowly falling to the ground.

Stoneham had the worst of all in the Metropolitan division but as usual Wire Chief Cameron and his force restored service.

HIGH SPOTS FROM THE CONSTRUCTION FORCE

Up to noon, November 28th, several local terminal poles and a few scattered trunk line poles had been lost, and it was apparent that the collection of ice on wires was becoming serious on the north and west of Boston. By noon, Monday, 11 line construction gangs had been moved into the north and west area and were assigned replacing and making safe local poles and patrolling, placing guys, and holding poles beyond breaks definitely known on the following toll sections:

Toll Section Number 12, between Wakefield and North Reading; Toll Section Number 11, between Woburn and Wilmington; Toll Section Number Nine, between Arlington and Billerica; Massachusetts Central between North Somerville and Wayland; one gang and one five-ton truck left Boston at noon of the 9th for the Summit, which is about eight miles north of Worcester with emergency cable for the A. T. & T., to patch a big break at that point; gangs were also assigned on Toll Section Number 16, between Waltham and Concord, and on Toll Section Number Six between Wellesley and Worcester. Also on the A. T. & T. Co., Midland Line beyond Westwood.

The ice situation grew steadily worse all through Monday afternoon and Monday night, the men on these lines working until late in the night, were roping up and holding poles, and, without question, they saved many sections of line from going down.

This same lay-out was repeated for Tuesday, November 29th, and the ice accumulation grew steadily worse all through Tuesday. The five-ton truck crew that had started Monday for Worcester, spent the day cutting their way through broken trees, broken poles, etc., and would not have arrived in Worcester, Monday night, were it not for the fact that the line gang, under Dan McDonald, cleared the road. These gangs arrived in Worcester, late Monday, and put up there for the night. They proceeded to the Summit. Tuesday and delivered their cable, working all through Tuesday and Tuesday night, not getting back to Worcester until 3 o'clock Wednesday afternoon.

On Tuesday, the gang on the Midland line patched and made good many wires. The four gangs on the Central Massachusetts were scattered from Boston to Wayland and, under the direction of A. T. & T. Co. line supervisors, saved many poles and sections of line. The same held good throughout Tuesday for the gangs on the other toll lines and all went home with the prayer that the wind would not blow. By that time, the accumulation of ice on the wires had reached a diameter of two and one-half inches in many places and large breaks in the toll lines were reported. Tuesday night, it was figured that, on the main line (the 70 wire line on the Massachusetts Central), some of the sections were carrying an ice weight of between seven and nine tons per section and, in many places, the wires had stretched down to and were lying on the ground. This was true in sections where the poles had not broken.

On Wednesday, November 30th, the weather pulled around warm and melting and the ice went off very rapidly. By Wednesday night, all trunk routes had been covered.

The following condition was found: Toll Section Number 12, the 50-wire line from Wakefield North, had 20 poles down in this division, with one 16 pole break on Haverhill Street, North Reading, near the Rifle Range. Toll Section Number 11 had four poles down between Woburn and a little beyond Wilmington. Toll Section Number Nine had 105

poles down between Arlington and the Burlington test pole. Toll Section Number 16 had 79 poles down between Waltham and the Concord-Lincoln line. Toll Section Number Six, between Wellesley and Natick had 11 poles down in this division, which ends at the Wellesley-Natick line. Central Massachusetts Railroad, the 70-wire main line going west, had 134 poles down between Somerville and Wayland.

Never in our history in this division, even when we had many more miles of toll line to maintain than we have now, have we been so seriously hit. The poles down represented breaks, but the general wire condition on poles that were standing was one well-wrecked cob-web.

The first problem was to clear the streets for traffic and Wednesday, November 30th, was devoted to this job. Our line gangs, with their trucks, had the carriage road traffic very well cleared Wednesday night, but, in some places "carried on" this job throughout Thursday. Friday and Saturday were spent by the entire force in patching wires that were called for, for through service, clearing away wreckage and four conduit maintenance gangs, augmented with about 30 laborers, were put to work in a systematic routine to gather up the copper junk. Toll Section Number 12, between Wakefield and North Reading, was patched in its entirety to the division line at North Reading—50 wires. Toll Section Number 11, Pins one to



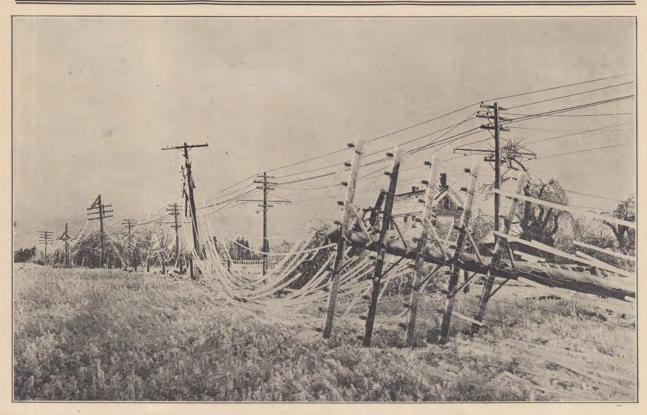
ON THE NEWBURYPORT TURNPIKE
This pole and many others on the Turnpike fell during the storm.



BELMONT'
Pole carrying the transcontinental circuits, Boston to San Francisco, down near the Belmont railroad station. All of these circuits were put out of commission.



IN THE FELLSWAY Lines from Boston to Melrose, Stoneham, and Wakefield were carried on this pole.



Poles carrying toll and local lines, Sunnyside, Natick, broken and twisted by the storm.

10 and 15 and 16, were carried through to Perry's Corner, Wilmington. The cables between Boston and Waltham intact, and the aerial cables between Lincoln and Waltham and Lincoln and Concord, although down and on the ground and broken open in some 27 places, were made whole and 23 pairs of

good wires were carried into Concord.

This was accomplished by Saturday night. We went into Sunday, December 4th, with the idea of carrying on the trunk line reconstruction and making a clean-up of the copper junk before the possibility of another storm would cover it up for the winter, and, right here, a very pleasing thing happened. Volunteers were called for from among the guardmen connected with the Metropolitan Division cable force. Sixty-eight guardmen showed up at 6.30 Sunday morning and were distributed among the four conduit gangs, and six other salvaging and junking gangs were organized, two working under Cable Splicers' Foreman Walter Sawyer, two under Acting Cable Splicers' Foreman, Louis Breslin, and two under Acting Cable Splicers' Foreman, Andrew Cooper, with the result that on Sunday night, the copper junk had been gathered, brought in and stored.

From Tuesday, November 29th, up to and through Monday, December 5th, the gangs worked from daylight until dark, with unusual enthusiasm, and, in spite of all obstacles and frequent changes in the plans, which necessitated rearranging the lay-out every night for the morrow.

The public was patient, they knew of our troubles, and many subscribers took occasion, both verbally and in writing, to commend the work of our forces in restoring the service.

The following is from Henry A Knight, supervisor of wires for the City of Worcester to Manager Abbott at Worcester and the comments of Division Superintendent of Plant, Tasker; General Manager Driver and President Jones.

I have been wandering around the city quite a bit in the last two or three days and can not resist the temptation of congratulating you, and the men connected with your organization, on the splendid showing they have made in removing the destruction caused by the recent ice storm.

It seemed almost inconceivable, a week ago, that such progress was possible, and only the thorough, the efficient organization, each man of which was inspired by a high feeling of loyalty, and a logical, definite plan of operation to secure such results as have been attained by you and your men.

Cordially yours,
HENRY A. KNIGHT,
Supervisor of Wires.

Mr. Dresser: You may well feel proud of the work done in Worcester.

C. N. TASKER.

President Jones: I think this expression of opinion is a fine tribute to our men and well deserved.

W. R. DRIVER, JR., General Manager.

Mr. Driver: This is fine, and better yet, it is deserved.
M. B. Jones.



WHEN MISS MARGARET CASEY, FORT HILL OPERATOR, RECEIVED THE THEODORE N. VAIL MEMORIAL MEDAL Just a few of those who attended

Vail Medals Awarded

THE Vail medals and citations, in accordance with awards for the year 1920, were presented by President Jones during the past month.

Fred J. L. Bayha of the East Providence office, who was not only awarded a bronze medal by the New England Company, but also a silver medal by the American Telephone and Telegraph Company, received his awards on the evening of December 8th at a meeting of the Providence Telephone Society, of which he is a member. Some 200 of Mr. Bayha's associates were present. The awards were made by President Jones of this Company, who, in presenting the silver medal and citation and the \$250 cash award of the American Telephone and Telegraph Company, acted as the personal representative of President Thayer. Mr. Jones made a short address, descriptive of the purpose for which these medals were designed, and T. J. Feeney, who was one of the New England Committee of Award, spoke in a somewhat similar vein.

Late the following afternoon, the bronze medal and citation, awarded to Margaret L. Casey, a Fort Hill operator, was presented by President Jones in the Fort Hill retiring room in the presence of an enthusiastic gathering of about 300 of Miss Casey's associates, not only in the Fort Hill office, but in other central offices of the Milk Street building.

A committee of Fort Hill operators assisted Miss Garvin, the chief operator, in working out a very enjoyable entertainment program in connection with the award. There were piano solos by Genevieve Murphy and Fred Dearing; a violin solo by Catherine McGlinchey; songs by Frances Mikolajewski and Katherine Mahoney, Florence Bearse and Henry Keane; and the recitation of an original poem by Miss Mildred O'Brien.

On December 13th, Albert C. Archer of Randolph received his medal and citation from President Jones, in the presence of about 60 of his fellowworkers in the South Suburban Unit at Quincy; and on that same evening, Mary A. Abely of Ocean, was awarded her medal and citation at a "family party," held under the auspices of the Ocean operators at American Legion Hall, Winthrop. Here again, a very interesting musical program had been arranged as a part of the evening's entertainment, and Miss Abely's associates supplemented the official award by the presentation of a beautiful bouquet of chrysanthemums.

On December 15th, Mr. Jones visited the Palmer central office and presented to Miss Bessie G. Blodgett of that office the bronze medal and citation voted to her.

That evening, at Pittsfield, Miss Mary A. Duffy received her award from the hands of Mr. Jones and an enjoyable "family gathering" of Pittsfield employees was held in the Y. M. C. A. Hall.

The winner of the seventh award in our Company, Miss Elizabeth G. Carlisle, is now employed as a branch exchange operator by one of the leading law firms of Boston. Miss Carlisle's medal and citation were forwarded to her by

special messenger, accompanied by an appropriate letter from the President.

It was expected that the medals would be ready for presentation several months ago, but the sculptor was not satisfied with the form of the original design; hence, the delay. The probabilities are that the awards for 1921 will be announced shortly after the first of next year and that the bronze medals will be awarded in the early spring of next year.

All supervisory people are charged with the responsibility of reporting to the Committee of Award such cases as they think worthy of recognition in this connection. President Jones has announced that the 1920 Committee of Award will also serve for 1921 and all supervisory people, desirous of bringing to the attention of this committee commendable acts of their subordinates for the year 1921, are urged to forward their recommendations as soon as possible to the chairman of the committee, Vice-President Longley.

William E. Lockwood Dead

BY the death of William E. Lockwood, on December 15, 1921, the Telephone Company loses one of its most faithful employees, one who was proud of the Company, and ever vigilant in its interest.

Mr. Lockwood was born in September, 1855, and his service in the telephone business dated from May 1, 1880, at which time he entered the employ of the Metropolitan Telephone Company of New York. While with the New York Telephone Company, he was manager, successively, of the 39th Street, 21st Street and John Street exchanges. He came to the New England Company in 1899, as manager of the



WILLIAM E. LOCKWOOD

Main exchange, later being made superintendent of exchanges of the Boston district. In 1902, he transferred from the Traffic to the Plant department, and assumed charge of pay rolls, on which work he continued until his death.

During his forty-one years of service with the Company, he had many interesting experiences in its early life, and it was a treat to listen to his many reminiscences. He was a contributor to the Topics, in which some of his poems have been printed. He will be missed by a host of friends, who extend their sincere sympathy to his family.

Telephone Society Meeting

M AJOR CHARLES T. CAHILL of the United Shoe Machinery Corporation gave the members of the Telephone Society a very interesting talk entitled, "The Shoe, Its History and Romance," at the monthly meeting, held at 50 Oliver Street, Boston, December 19th. Major Cahill's talk was illustrated by lantern slides and motion pictures. President H. E. Tarr presided and Vice-President M J. Meagher led the community singing. If you want an evening once a month of pleasure and instruction combined join the Telephone Society. The dues are \$1.00 per year, and Gordon Wallace has plenty of membership applications ready to be signed.

Daisy Chain for Harry Vincens

T is great to know and be sure that one has real friends. Commercial Manager Vincens of the Metropolitan division was doubly assured of this fact at Thanksgiving time when he received a "daisy chain" from more than 200 employees, all friends of his, in the Metropolitan division. The idea was conceived by Commercial Representative Lytle of the Milk Street public office force, and consisted of an individual greeting to Mr. Vincens from each person. The greetings were written on daisy-shaped paper and then the entire 200 attached together. When Mr. Vincens received the chain he sent the following note to TELEPHONE TOPICS and asked to have it printed expressing his appreciation:

I have been wondering how I could thank all my kind friends who gave me so much pleasure when they wrote their little line of cheer on the "Daisy" petals of the big "Daisy" sent to me through the kindness of Ted Lytle.

Finally, I thought of our widely-read TELEPHONE TOPICS, and I thought that possibly you would give me a little space to express my great appreciation to each and every one.

The great "Daisy" letter came on Saturday, November 26th, and it surely was a wonderful surprise to me. It makes me feel fine to know that I have so many friends in our big company.

If well wishes and good thoughts can help one—and I think they do—I surely must be on the high road to health.

Mrs. Vincens and myself spent all Saturday afternoon reading all the cheery messages. We were also pleased to see that we have some artists among us, too.

Springfield seems to agree with me as I am gaining slowly each day. I go out almost every day and have had some very pleasant rides around the country up here.

You can believe that I will be glad to be back among my old friends again just as soon as I can make it. So I am keeping up my courage and my appetite and looking forward to the day when I can drop in on you all and say "Thank you" in person.

As there were over two hundred names and messages in the letter you can readily see that it is impossible for me to thank each one personally. So if you can oblige me in this matter I will greatly appreciate it.

Mr. Vincens has been ill for some time and is now living in Springfield.

Thrift and Stock Ownership

Subscribers	10,455
Shares	44,262
Shares per subscriber	4.23
Per cent. of subscribers to total	
eligible employees (estimated)	63.2

THE above synopsis gives some of the outstanding features of the new stock plan as of November 30th. It certainly is an eloquent expression of appreciation of the plan by the employees of this Company. In order to be eligible to subscribe to the stock at par, one had to be six months in the employ of the Company on November 1st. Practically two out of every three persons, thus eligible, voluntarily subscribed and this without reference to many who already hold or are

paying for stock under previous plans.

This showing doubtless will be gratifying to the directors of the American Telephone and Telegraph Company, who, in devising this stock plan on a partial payment basis, were primarily actuated by a desire to promote an attractive thrift plan. The desire for some such plan was expressed from many parts of the country, especially from sections where savings banks are few or far between, or almost wholly unknown. Here in New England there are various kinds of saving institutions-savings banks, co-operative banks, credit unions, and so on, all conducted under careful state supervision; it is all the more gratifying, therefore, in view of these various agencies to facilitate savings and thrift, that the new stock plan should have been received by the employees of this Company with such a hearty and spontaneous endorsement.

As was explained, last month, in a circular sent out by the Vice-President and General Manager, this stock is offered to employees at par. The amount actually to be paid in, however, under this plan for each share of stock is \$90.46. The difference between that amount and the par value— \$100—is represented by the interest allowed on the weekly or monthly deductions from the payroll. These deductions are credited with interest at the rate of 8%, compounded quarterly, if they are allowed to mature into shares of stock. If, by reason of some unforeseen need, the subscriber is compelled to withdraw his payments, he will receive interest on the amounts paid in at the rate of 6% per annum, compounded quarterly. Such withdrawals are permissible. It is hoped that they will not be necessary, however. The only true way to save is to do it systematically. It was made quite clear in the circular already referred to, and in all other announcements of the plan. that no employee was in the slightest degree obligated to become a subscriber. He was also urged not to subscribe for a larger amount of stock than he felt he could conveniently carry. In view of all this, we look to see very few withdrawals.

* * * * *

Doubtless some were influenced in subscribing by the rise in the market quotations for American Telephone and Telegraph Company stock. As we write, the quotation is \$116½. In other words, each share of the stock would bring \$116.50, if sold in accordance with the market quotations of this particular day. Perhaps some had figured that they could do a nice little stock business by buying the stock for \$90.46 per share and selling it for \$116.50. We predict that any such practice will be frowned on, however, if it is attempted. Instead of encouraging thrift and investment, this would be simply encouraging speculation. Any subscriber under this or previous stock plans is privileged to sell his stock whenever he pleases, but the stock books will show when this is done.

The directors of the American Telephone and Telegraph Company desired to encourage investment. They wanted that investment to be regarded as reasonably permanent. Apart from their confidence in the worth of the stock of the institution which they manage, they felt that the employees would prefer to invest in a business with which they were intimately associated and of which they knew something, rather than in one with which they had no connection and of which they knew nothing. Every holder of a share of stock of the American Telephone and Telegraph Company is a part owner of the Company and entitled to a voice in its management. As an owner he is naturally interested in its welfare and willing to contribute toward that welfare his own personal efforts. All this works for a better understanding between the employees of the Company and its management and a better appreciation of the fact that the success of the organization depends upon good service and good relations with the public.

Incidentally, the number of shares subscribed for represents an addition of over \$4,000,000 to the capital of the American Telephone and Telegraph Company. While this is only a small part of the total amount of new money called for each year, in order to make the necessary additions to plant demanded by the constantly increasing requirements of the public, it is in itself a substantial sum. While it would not begin to supply the new capital required by the Company, it has a very important influence on the mind of the investing public. The investing public argues that,

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if the employees of a concern are also purchasers of its stock, that fact denotes, first, a harmonious relationship between employees and management, and secondly, a confidence in its stability as a dividend-paying enterprise by those closely enough in touch with its affairs to have some knowledge of its prospects.

Our hope is that those who have subscribed will let their subscriptions mature. It may take some careful planning, and perhaps a little sacrifice, to do this, but we believe the sacrifice will be worth while. Systematic saving is the only real way to save. If these systematic savings can be allowed to mature into shares of stock, and the subscriber begins to experience the satisfaction of regular dividends on this stock, no further thrift argument will be necesary.

Traffic Force Wins Praise

I N a recent issue of TELEPHONE TOPICS we printed several fine letters from subscribers in the Eastern Massachusetts Division, praising the work of our operators. This month we have several more.

During a recent forest fire in Hyannis, the operators at Hyannis and Barnstable attended many calls for Forest Fire Observer Jenkins. The operators did such a good job that he wrote the Hyannis chief operator as follows:

To the Chief Operator, Telephone Office, Hyannis, Mass.

Please allow me to extend my sincere thanks to you and your assistants for their prompt and efficient service rendered to me during the late forest fire in Hyannis. Also to your assistants at the Barnstable office, where promptness in answering and anticipating my calls was of great assistance all during the fire.

Believing that this word of commendation is due you,

This is what Oscar C. Davis, a Brockton subscriber, wrote to Manager Colwell about the Brockton force:

I want to thank you and your operators for the very efficient service which we had on our lines during the past week.

With the loss of my mother we had many calls to make, and I want you to know that I appreciate the efficiency and courtesy with which you good people operated, and it is a pleasure to write you to this effect.

O. W. Brown is the Lynn correspondent for the Boston *Herald*, and this is what he wrote Manager Barry about a recent case of Service First in Lynn:

So long as I cannot thank personally the operators who handle the calls on my 'phone—Lynn, 1211,—I wish you would in some manner let them know that I appreciate the attention they give my business calls. I had this impressed upon me pretty forcibly last Sunday night, when with details of three automobile accidents and an attempted suicide to secure in a bunch and shoot into Boston, so The Herald could have the stories in its first edition, every call which I made was promptly answered by the operator, although I knew that at least two other reporters for Boston newspapers were after the same calls I was making. The result was that The Herald had the stories on Monday morning, and with considerable more detail than the other Boston newspapers.

That's what I call Service First.

Another case of personal service in the following letter from W. H. Revear shows:

I think it only fitting for me to state in justice to the young lady, whoever she was, that not long since I was at Woods Hole trying to get in communication with my office at Tisbury; at each instance the line was reported to be busy. I waited as long as I could, and as the boat was about to leave the wharf, notified the operator that I would have to give up the call, as the boat was leaving. The operator very courteously offered to take my message and send it through when the line could be had, which she did, and it gives me great pleasure to bear testimony to the very efficient and courteous treatment of your operator at Falmouth or Woods Hole, whoever she may be.

Mrs. Edward P. Flynn, a Salem subscriber, called the chief operator, to thank the operators for the excellent service rendered during a recent death in her family. She said she made several emergency calls, and was given such prompt and courteous attention that she felt in duty bound to extend her appreciation. She had often heard and read of the good work in the past by the operators in such cases, but never had a personal experience, which made her realize that in her bereavement she had such loyal friends.

All of these letters prove the Eastern Massachusetts force are right on the job.

Four Credit Unions in Our Company

POUR fine Credit Unions are now in active operation in our Company, all of which are doing a fine job under the able direction of their officers for employees of our Company. The Telephone Workers' Credit Union of Maine is the baby of the family and it is a husky baby with more than 500 members. The Telephone Workers' Credit Union of Mass. is the oldest and incidentally the largest with a membership of more than 5,000. Rhode Island employees and New Hampshire employees have fine Credit Unions in their states.

At a recent meeting of the Credit Union League of Massachusetts, composed of all credit unions in Massachusetts, Frederic E. Cox, editor of Telephone Topics and secretary of the Telephone Workers' Credit Union of Massachusetts, was elected president of the League.

So credit unions are pretty well represented in our Company.

Personal Service by Boston Toll

PERSONAL SERVICE has been pretty much in the limelight of late, as it very properly should be. We have heard a great deal of Personal Service on local calls and we have wondered what our toll people are doing to develop this most important feature of our service. That they are doing a lot is proved by the following cases which have come to hand.

WHERE INITIATIVE WON

The call was one of those urgent calls labeled "very important" that are often received in a most ambiguous manner. The patron did give this much information—that he wished to speak with a Mrs. D., who had recently arrived from

Chicago, and it was possible that she was visiting her mother's home at South Chelmsford, Mass.



snould begin where information records leave off. The Boston operator believing in this theory secured a Lowell directory and attempted several subscribers until the party desired was obtained. Connection was established within twenty minutes and the appreciation of the calling patron was manifest with his exclamation to Mrs. D. upon being connected, "How in thunder did I ever get you? I only knew about the antique china!"

The completion of this call was possible only through the initiative and Personal Service of the Boston operator. A little extra effort on her part and a few minutes' work and she accomplished the seemingly impossible.

PERSONAL SERVICE IN AN EMERGENCY

Another case of particularly good work occurred on an emergency call from Quincy. A small boy has been drowned and the mother immediately placed an emergency call for a Mr. D., at

Boxford, Mass. No telephone was listed and the information given by the calling party was that she knew he was in Boxford as a summer guest, but what part she could not say. The Boston supervisor took upon herself the responsibility of securing the party for the excited woman, and called the supervisor at Topsfield, Mass. No definite information could be obtained from records or Boxford subscribers, and the supervisor made inquiries among the different operators. One operator remembered a name similar to the one being sought and suggested that the supervisor try a certain number, as she had an idea it was there she had heard about him. The particular number was rung several times, but no response was obtained, the Granite subscriber

being so notified and assured that we would continue our efforts. Topsfield repeatedly tried to reach the suggested station. Within fifteen minutes our efforts were successful when a response was received and conversation between the two parties started!

"HE LIVES IN A GRAY HOUSE IN BOSTON"

Another case occurred a few days before the consecration of the present Catholic Bishop of

Springfield, Mass. The inward toll operator at Boston received a call from Springfield for a Mr. P., who lived in a gray house in Boston. This was all the information that could be obtained. The supervisor personally tried several telephones and being unsuccessful at the end of an hour called Springfield and suggested that, if it were possible, to endeavor to secure other information. Ten minutes later Springfield gave the information that it was in regard to the consecration of Bishop O'Leary, that the party wanted possessed the dyes used in making the insignia of the bishop's coat of arms, that she had heard something about Massachusetts Avenue, and that it was important that the party be secured promptly.

Such details were referred to the Back Bay, University and Arlington chief operators. Within fifteen minutes, University called with the information that one of her operators knew of a man in that sort of business with a similar name, and that he was living with one of our subscribers of a



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different name on Massachusetts Avenue. The subscriber's telephone was secured and conversation was established between the desired party and Springfield.

LOCATED A FOREIGNER IN AMESBURY

The following case is one of those blind calls where almost no information is given for the operator to work on. It was an emergency call from a Hull public telephone to Amesbury, Mass. The only information given was that the desired party was an Italian by the name of Joe, who worked in a shoe factory.

Toll operators pride themselves on resourcefulness which is one of the links in the chain of Personal Service, and it was not surprising to have the operator who secured this call work two days endeavoring to obtain it. Not much was gained the first day and the effort was continued the second. Every shoe factory at Amesbury was called; the party was then paged through every department of the various factories until he was finally located and put in conversation with the party waiting patiently at the Hull station.

Another case concerned a call from Somerville to Rockland, Mass. The toll operator had reached the distant party and the connection was ready, but the Somerville subscriber could not be found, as the Somerville number was incorrect. The usual procedure of reference to the information operator did not result in determining who made the call. It was not until the Somerville patron requested a report on the connection that further trace of the Somerville subscriber was found. On

that call the same incorrect number was left with the recorder, the toll operator still being unable to complete the desired connection. On the subscriber's second request, however, mention was made of the call concerning a death, and the toll supervisor started out to determine who the party was that wanted the connection.

A call to the Rockland subscriber resulted in information being obtained that a Mrs. - at a Broadway address, Somerville, might be the person calling. Effort in that direction disclosed that there was no telephone at the Broadway address, but that there was a telephone next door. This telephone was called and the information secured that a new neighbor had recently moved in next door. No information concerning the new neighbor, however, could be furnished by the subscriber. A neighbor across the street was tried who volunteered to call at the desired address and get such information as he could. The report came back that the party being sent for was at that address and that a connection with Rockland, Mass., was desired. The messenger volunteered to return the second time and have the neighbor use his telephone. The connection was soon established and conversation held.

It developed that a few moving changes had occurred in the neighborhood and that the telephone of the former subscriber had been disconnected. The telephone was in the house of the subscriber who desired the Rockland connection and was used by her to place the call. As the former subscriber to that telephone had cancelled his service, record of the instrument had been



THE REASON

removed from the information list. The perseverance and resourcefulness of the toll supervisor in locating the party was highly commended.

THIS TOLL OPERATOR HELPED A SUBSCRIBER

The following case concerns the good work of a Boston toll operator which saved the calling party a needless trip to West Gloucester. A lady had planned to visit friends in this town and wished to telephone first to see if they were there. The particular party she wanted had resided through the summer months in a large farmhouse in the country part of Gloucester and being only summer residents had not contracted for telephone service. No messenger could be secured to go there and the patron believed it necessary to take a chance and go to Gloucester.

The toll operator, however, thought differently and called Information at Gloucester and secured the nearest telephone number to the location. From this number she obtained the information that they were quite a distance from the place desired but had the nearest telephone, and the information was also given that the particular people wanted had closed up their home and had gone to New York. The information was doubtlessly gratefully appreciated by the calling patron for the personal part our operator took to secure for her, in a few minutes, what would have necessitated a whole day had she been obliged to travel.

LIFE OR DEATH CALLS HANDLED WITH DISPATCH

Whenever serious illness or death occurs, acts of kindness are deeply appreciated. Many times the telephone has been acclaimed, indeed, a friend in need, but the telephone, itself, is limited in its capabilities without the incentive of personal interest behind it. It is our pride that the spirit of service among operating employees has always exemplified itself when the possibility of alleviating the anxiety or suffering of the public has presented itself. So it is not seldom that an occasion similar to what two of the evening toll operators recently handled is efficiently and effectively disposed of.

A Canton subscriber had the sad experience of having his wife become seriously ill late in the evening, and, as hope for her recovery was abandoned, it was essential for him to communicate promptly with her brother in Haverhill and other relatives located in Massachusetts and Rhode Island. All the information the calling subscriber could give was the names of the parties he wished to secure, not being acquainted with their addresses. In but one case a telephone was secured in the house that the called party resided in. Through the aid of distant information desks, the memory of operators, and the local police, the addresses of the other desired parties were obtained. Messengers were then dispatched to bring to the nearest telephone the one that anxiously was awaited and to the relief of our calling subscriber conversation established. In one case, the

memory of a local operator recalled a friend of one of the parties desired and by communicating with him he volunteered to walk a mile and a half through the country, at night, to deliver the mes-

sage requested.

The woman died a few hours later, but her brother from Haverhill reached her bedside in time to be recognized by her. The other parties arrived shortly afterward. The gratitude of the subscriber was accentuated in the sincere letter of appreciation he forwarded to the superiors of such loyal operators. The recognition of their efforts by the subscriber served was commensurate of the reward they expected.

Every one of these cases is a shining example of what our toll people are doing to give a truly Personal Service—a service that will more than ever stamp our organization as one forever trying

to do more than just the job.

Braintree Repairman Prevents Serious Damage

N December 19th, Repairman G. H. Jones was assigned to clear a loop cross and ground in a house on Rock Island Road, in the Houghs Neck section of Granite. He found the house, a summer cottage, closed for the winter. Before leaving the place his ears caught the sound of running water which seemed to come from the inside of the house. Climbing up to a window he looked in and saw water pouring down from the floor above. This was causing the trouble to the line.

Going to the house next door, Mr. Jones found that the owner of the vacant house had another telephone and he notified them of the danger to their house. They immediately made arrangements to have the water turned off.

The subscriber expressed appreciation for the interest and help given by our employee.

New Movies Coming

LECTURE MANAGER WEST announces that we will soon have a new three-reel motion picture entitled "Beyond the Range of Vision," covering the various phases of the telephone business, both outside and inside, for use throughout our territory. These pictures are for use on a Pathescope machine, are slow burning, and can be shown without a license or a booth anywhere there are electric lights.

An ideal combination of lantern slides and movies has been arranged by Mr. West and this plan is now being used effectively in many sections of our territory. Several different lectures have been printed for the use of managers, all of which are very interesting to the public. Last year's record of lectures given in our Company should be greatly exceeded in 1922. Are you doing your part, Mr. Manager, to make this possible? If not, why not?

First Aid-Injuries Caused by Cold

BY EDWIN W. BULLOCK, M. D.

HEN any part of the body, or the whole body, is exposed to extreme cold, the blood vessels gradually contract, driving the blood from the exposed part into the deeper tissues of the body. This lowers the vitality of the part which first becomes chilled and finally frozen.

The part affected at first becomes dark red in color, then purple or mottled and finally white and

stiff with frost.

Frost-bites—Here the tissues are actually frozen, the ears, nose, cheeks or extremities being the parts

most often affected.

The symptoms are familiar to most of us—first a tingling or burning pain increasing in severity until the tissues become actually frozen, when the part becomes numb and the pain stops. Then look out for trouble.

Remember and keep the frozen person away from the heat and out of a hot room until you have slowly restored the circulation by rubbing the part with cold applications and thus removing the frost. Failure to do this often results in gangrene or

death of the part.

Rub the frozen part with snow, ice or cold water until the color gradually returns. In case of frozen feet or hands, fill a tub with snow or ice water, put the part into the tub and rub gently with your hands, rubbing from below upward until color returns.

When the circulation has been fully restored, rub well with vaseline, olive or castor oil, and cover with soft cotton cloths as you would a burn.

Remember that all severe frost-bites need a doctor's care, and, if neglected, often lead to

serious results.

Remember also that frost-bites can often be prevented in the early stages by rubbing the part briskly with the hand and then protecting same from the cold.

Exposure to Cold—After long exposure to cold the whole body gradually becomes chilled. The limbs feel numb and heavy, the person gradually becomes drowsy, then unconscious, and, if alone, sinks down in the snow and death rapidly follows.

Use the same treatment in this case as outlined for frost-bites, until the doctor comes. Take the person into a cold room and rub the body with snow or cold water until you have restored the circulation; then move into a warm room, put to bed, cover warmly with blankets and apply heat to the body. When the person recovers consciousness, give plenty of hot drinks, hot milk, tea or coffee or hot broth of some kind. The aromatic spirits of ammonia can also be used to advantage.

Chilblains—Usually caused by mild frost-bites or chilling of the skin, which finally becomes in-

flamed and swollen, and sometimes small blisters form.

We have them on the nose, ears and fingers, but most commonly on the feet and toes, where they cause much discomfort for they ache and itch,

especially after one has gone to bed.

Warming your feet in a stove oven or standing over a register after they have become chilled is a mighty good way to cause chilblains. Again, they are often caused by tight or ill-fitting shoes or gloves, thin stockings, or thin soles on the shoes.

Treatment—First remove the cause. Get warm, well fitting gloves for the hands. Wear a shoe with a good thick sole and be sure that it does not pinch any part of your foot. Wear woolen stockings and don't go out into snow or slush unless you have on rubbers or overshoes.

After the feet or hands have been thoroughly chilled, it is best to bathe them in cold water, dry with a soft towel and don't go near the heat too soon. Foot powder or talcum powder often gives relief and mentholated vaseline is very good.

With chilblains of the feet the itching at night is very distressing and often keeps one awake a

long time.

This can be relieved by soaking the feet in a warm solution of alum and water (about 110° F.) just before going to bed. Put plenty of alum into the water and soak for from fifteen to twenty minutes. After you remove the feet from the water, let them dry without wiping and the alum will form a white coat on the skin. In the morning bathe the feet in cold water, wipe dry and powder well with talcum or foot powder.

In case these simple remedies do not give relief,

go to a doctor at once.

First Aid Classes

THE storm of November 27th, 28th and 29th impeded somewhat the progress of the First Aid Classes now being organized throughout our territory. Every available plant man was needed to restore service. In the last issue of Telephone Topics we published the picture of the General Committee in charge of First Aid Work. During the past month all of these men have passed the examination and received certificates as Red Cross First Aid Instructors and everyone of them received a percentage of 90 or better. In Rhode Island a class is making rapid progress and in the Eastern Mass. Division a class, instructed by Arthur Hindle, has passed all examinations with flying colors.

Dr. Bullock is now instructing classes in

Vermont and New Hampshire.



Associate Editors

FRANCIS A. MAHAN, Plant, Liberty Exchange H. C. GAY, Traffic, 125 Milk Street WILLIAM V. GORMLEY, Commercial, 245 State Street

Who's Who in Metropolitan Plant

H, what a pal is Mary."

There is a young lady in the Metropolitan Division plant, of whom the above might well have been written. She certainly has a wonderful disposition. No matter

how many times a day she is called on, or how busy she may be, will always be answered with the "voice with the smile."

At the Christmas parties, after the tree, Mary is very much in demand as she is a fine dancing partner and manages to smile even when she fails to dodge her less experienced partners with awkward feet.

Mary Fanning also has business ability and is, at present, in charge of the prepara-



MARY FANNING

tion of pay rolls. She entered the service in October, 1901, as a clerk in the Plant Accounting Department and was transferred to the general office in October, 1914, where she remained until December, 1919, when she was transferred to the Metropolitan Division Plant office at 245 State Street.

Her present position brings her in contact with all branches of the Metropolitan Division plant and she is probably the best known, at least over the telephone, of any of our young ladies.

The photograph will serve to introduce her to those many friends who are only familiar with her pleasant voice.

New Chiefs at Brighton and Hyde Park

N November 21st, Mary A. Swett was appointed chief operator at Brighton. Miss Swett has had considerable experience in traffic work, having served as operator, supervisor and junior chief operator at Roxbury. During the past year she has successfully filled the position of chief operator at Hyde Park. Her promotion is well deserved and she has the best

wishes of her many friends for even greater achievements.

Margaret A. Frawley was appointed chief operator at Hyde Park, on November 21st. She entered the Company at Brookline and later advanced to the position of supervisor and observer at the same exchange. In recognition of her ability, she was afterwards appointed instructor in the school for operators and later was promoted to junior chief operator at Brookline. This training has fitted her admirably to handle her new assignment.

Traffic Superintendents Appointed

DIVISION SUPT. OF TRAFFIC BRIGHAM announced, on December 5th, the following appointments and changes in the Traffic Department of the Metropolitan division.

Maurice G. Keating appointed superintendent of traffic, central district, and will report to the division superintendent of traffic.

Joseph F. Burns appointed superintendent of traffic, suburban districts, and will report to the division superintendent of traffic.

Harry J. Whitaker appointed superintendent of traffic, Boston toll, and will report to the division superintendent of traffic.

Frank D. Field appointed district traffic manager, Jamaica district, and will report to the superintendent of traffic.

With the Boys

"If your back is sore and weary From long sitting in a chair; If your joints are getting rusty, And rheumatics make you swear: If the ills of age assail you. Or you're getting far too stout; If your knees are getting wobbly, Or you're troubled with the gout: If your head is getting shiny On the place your hair should grow; If the little things annoy you And make you suffer so; It's time you took a tonic-Get out, yell, and make a noise; Take a day off from your labors And spend it with the boys."

-Capt. Billy's Whiz Bang.

The Definite Program

By Bernice M. Wilbur Wellesley Chief Operator

A LL well-regulated business houses have come to realize that the best results can be obtained only through scientific management. By scientific management, we mean to carry on, direct, conduct, or regulate our business according to laws which with proper application are known

to produce certain results.

Office work in its very nature, consists of masses of detail. In order to care for any volume of detail satisfactorily, it must first be arranged in orderly, smoothly operating channels. Our offices are no exception to this, and there are many factors which directly or indirectly affect our service quality. It is on all these factors that we must direct our attention, for to perfect all parts of our system but one, leaving that neglected, is to repeat the story of Achilles' foolish mother: "She dropped him in the Styx, thinking to make him invulnerable. But one spot, his heel, where she held on to him, remained vulnerable. Achilles fell through that one weak spot."

THREE DEFINITE STEPS.

Just as a builder must have his plans before actual construction begins, so must we have our plans, which we shall know as our "Definite Program," before we begin to lay a firm foundation. What shall be embodied in this Definite Program? The process of drawing it up shall consist of three definite steps:

1. Ascertainment of all factors which affect

our service quality.

2. Study or analysis of existing conditions.

Planning the proper constructive measures. These steps will be considered in the order named, for we must first know what factors affect our service quality. The Definite Program shall contain all the elements which have any effect on service quality, such as the six service items, peg counts, force adjustment, balance of loads, supervision, attendance, conservation of revenue, etc., etc. In compiling these factors great care should be exercised to consider not only the aforementioned factors, but the human factor as well, for without due consideration to this we can never hope to attain the best results. Aside from having enumerated some of the main elements which affect service quality, Step No. 1 will not be considered on further detail.

The second step, one equally important in drawing up our Definite Program, is the study or analysis of existing conditions. This step offers great possibilities for on each and every item we have definite and defined facts, which when analyzed and shown graphically, show at once our weak points. Has not our greatest weakness been in conducting our day-to-day office routine by guess instead of by chart? We have had all the data provided for us, but what have we done other than

note and file? Could not these figures be utilized

to far better advantage?

Too much cannot be said in favor of graphic charts, for without these charts we can only guess, but with them we can know not only where we stand, but we can predict far more correctly than any other way. Columns of figures are a tedious means of keeping in touch with all the facts. Charts accurately kept and based on carefully detailed figures picture the story at a glance.

On many of our elements we have an objective within which we should keep at all times. For the purpose of this discussion, let us consider one element in detail, and see how analysis and charts will aid materially in solving our problem. Let us take "Speed of Answer" in "X" exchange. A study of all answers over 10 seconds that occurred during a period of three months as to hours of day, and line location on switchboard showed:

1. That 60% of all answers over 10 seconds occurred on 25% of the total "A" positions.

2. That 57% of all answers over 10 seconds occurred in 30% of the total observing hours.

3. That 60% of all answers over 10 seconds occurred on the last two positions of switchboard.

4. That 60% of all answers over 10 seconds occurred at an hour other than the busy hour (the busy hour taken from 8-10 A.M. and 7-8 P. M.).

5. That 51% of all answers were in 3 seconds

or less.

Charts will readily point out these important facts:

1. That 60% of all answers over 10 seconds occurred on the last two positions.

2. That 60% of all answers over 10 seconds occurred at an hour other than the busy hour.

3. That 51% of all answers were in 3 seconds or less. Before making this analysis it was not so obvious that the last two positions needed immediate attention. Further analysis of these two positions will show whether this condition is due to the positions being overlooked or to poor force adjustment. After having convinced ourselves that these two features are correct, we can go into other causes for long answers, such as answering signals in the order of their appearance, inattention, poor team work, etc. In working out these results for several exchanges it proved in every case, although it was more marked in some than in others, that the lower the average answer of line signal, the larger was the per cent. of answers over 10 seconds.

The third and last step of our Definite Program, "Planning the Proper Constructive Measures," can best be left to the individual exchanges, for what would be applicable to one exchange would not be applicable to another due to the variance of size. Personal initiative, which is constructive thinking, will play a material part in this step

of the program.

Once having placed our offices on a firm foundation by such plan as this, we can not help giving our customers prompt and efficient service.





THE WINNERS Liberty's Championship Team

THE LOOSERS
Aspinwall's Huskies Tried Hard but Lost

Liberty Wins Football Game

HEERED on to victory by almost every man employed in our Liberty and Beach offices, aided and abetted by a large number of the fair sex of the Traffic Department in the Beach office, the Liberty football team defeated the Aspinwall eleven on Lowell field, Brookline, December 3rd, 13 to 0.

Both teams had a number of former college and high school stars in their lineups and from a spectacular point of view it was a sweet football game to watch

Hamilton of Liberty, a former Harvard football player, was easily the star of the game, and his open-field running and line-plunging was a la "Bo" McMillan style.

Another bright light in the Liberty lineup was Selgren at full back. For Aspinwall, Beck and Shaw were conspicuous in every stage of the game. D. S. Adler, who has charge of the first aid and accident prevention work in the Metropolitan Division, was right on the job during the game with his first aid kit and gave great assistance to injured players.

The state of the s
The summary:
The summary: LIBERTY EXCHANGE Willis La
Willis, l. er. e., Ford
Nolan, l. tr. t., Leyden
Dorne, l. g g., Beck (Capt.)
Lichenstein, c
V. Murray, r. gl. g., Finlay
1 g Ohrien
R. T. Laskey, r. t
l. t., Porter
J. Murray, r. el. e., Kenney
l. e., McGaffican
Lynch, q. bq. b., Riley
Hamilton (Capt.) l. h. br. h. b., Houghton
McDonald, r. h. bl. h. b., Cooney
Soloron f h
Selgren, f. bf. b., Shaw
Score: Liberty, 13. Touchdowns, Selgren, Hamilton.
Goal from touchdown, Hamilton. Referee, McGivney.
Umpire, Reddington. Linesman, Whiteway. Time, 10 m.
periods.

Commercial Notes

DURING the past month, illustrated lectures have been given by Commercial Manager John G. Pollock to the pupils of the Everett

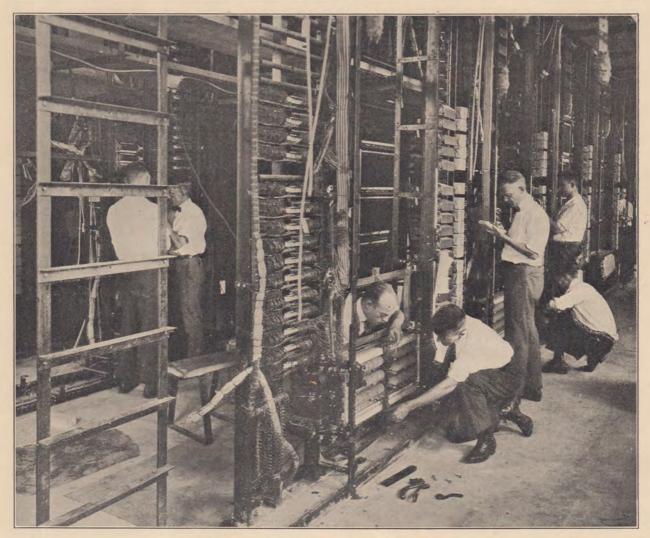
high school; by Commercial Manager Walter D. Cobb to the Harvard Improvement Association at Dorchester; and by Commercial Manager Robert J. Pruyn at the Immanuel Methodist Men's Club, Vermont Association and to the pupils of the North Junior high school and High School of Waltham.

William T. Condon, of the Central district, and Miss Gertrude Harrington of the South Suburban district were united in matrimony the latter part of November. Miss Harrington was one of the most popular employees of the Commercial Department. Mr. Condon was a member of Company C, 317th Field Signal Battalion, during the World War and saw active service in Europe. The many friends of the bride and groom presented them beautiful gifts.

Machine Switching

ACHINE switching installation is progressing rapidly in the Boston district, mainly in Aspinwall, Liberty and Columbia. Aspinwall is nearing completion, being under test at the present time under Supervising Tester, C. I. Ingalls. The work is progressing so rapidly that it necessitated a trip to New York by Mr. Ingalls, who wished to investigate conditions and asked a few questions in regard to methods employed in testing machine switching equipment. Mr. Ingalls went to New York with a small book of questions, but returned with a large volume of valuable knowledge and since his return has been able to talk to an unlimited extent on the subject. While over there, he was very busy visiting some several exchanges and other places. On his return he was to report to the machine switching installation school, but for some unknown reason was unable to do so, and we wonder why? Too much New York! As the boys say, you have to be rugged to stand it. We hope this trip will not interfere with any of Mr. Ingalls' plans for the future, as he has made rapid progress with the job to date.

Kappy New Year!



ASPINWALL IS FAST SHAPING UP

Troubles Ahead

THIS is the season when old buildings of various shapes and sizes are rolled over the highways of the South Shore district to more favorable locations, where expert contractors remodel them into shore and country bungalows, which are eagerly rented by the summer population at almost unbelievable prices.

On these moving jobs, telephone cables, ring wiring and drop wires require the close attention of the unit wire crews, while the buildings are being winched slowly from street to street, and frequently from one town to another.

Goodbye and Good Luck

A N interesting presentation took place in the Somerville exchange on November 10th, when James E. Ford was the recipient of the good wishes of the traffic and plant forces, on the occasion of his transfer from Somerville senior testman to senior testman in the Cambridge office.

AS A MACHINE SWITCHING OFFICE

Mr. Walter E. Jones handed to Mr. Ford a brief case in the name of the traffic employees, and a week-end bag from the plant employees, expressing in a few words their feelings of regret in losing him, and their hope that the future will prove as congenial as the years he has spent with them in the Somerville office.

Welcome, Blue Bell

NOTHER magazine has been added to our already large family of Bell System magazines. It is the *Blue Bell*, published for employees by the Bell Telephone Company of Canada. The first issue of the *Blue Bell* contained 16 pages of live, interesting news about our neighbor up north, and was a credit to the Company. TELEPHONE TOPICS welcomes the *Blue Bell* and its editor, G. O. Cameron, and hopes it will be the success in its field that all other Bell System magazines are. We believe it will.

Traffic Changes and Promotions

OSE M. MAHONEY from operator to junior supervisor, Arlington.

Ellen C. Trant, from junior supervisor to

supervisor, Belmont.

Agnes M. McCarthy, from junior supervisor to supervisor, Milton.

Mildred E. McCoy, from operator to junior

supervisor, Milton.

Teresa P. Murphy, from operator to junior supervisor, Milton.

Louise E. Casey, from junior supervisor to

supervisor, Dorchester.

Ella E. Driscoll, from supervisor to evening chief operator, South Boston.

Anna G. Dowling, from junior supervisor to supervisor, South Boston.

Catherine F. Roche, from operator to junior

supervisor, South Boston. Teresa G. Coneys, from operator to junior super-

visor, South Boston. Frances G. Conlon, from operator to junior

supervisor, Parkway. Desdemona Kunstler, from operator to clerk,

Parkway.

Rose P. Gallagher, from clerk to supervising clerk, Jamaica.

Myrtle E. Lowell, from supervisor to junior chief operator, Brookline.

Mary F. Harrington, from evening chief operator

to junior chief operator, Roxbury.

Mary E. Collins, from supervisor to evening chief operator, Roxbury.

Grace C. Hughes, from junior supervisor to supervisor, Roxbury.

Anna J. Coleman, from operator to junior supervisor, Roxbury

Mary M. Cuffe, from supervisor to junior chief operator, Fort Hill.

Helen A. Ahern, from operator to supervisor, Fort Hill.

Helen M. Burke, from operator to junior supervisor, Fort Hill.

Marguerite S. Mayo, from exchange observer, Fort Hill, to Local Observing Department.

Mary A. Sullivan, from operator to clerk, Brook-

Adelaide R. Foster, from operator to junior supervisor, Brookline.

Annetta F. Duggan, from operator to junior

supervisor, Brookline. Mary E. Mannix, from operator, Dedham, to

supervisor, Norwood.

Adelaide V. Robicheau, from local operator to junior supervisor, Ocean.

Charles F. Donahoe, traffic supervisor in charge of complaints, transferred to Executive Depart-

A. J. Hanlon, assistant traffic manager, Somerville District, promoted to traffic supervisor in charge of complaints.

George Anderson, Traffic Engineers' force, transferred to assistant traffic manager, Somerville District.

M. W. Williams, assistant traffic manager, Newton, transferred to Complaint Bureau as service representative.

W. J. Lund, trunk traffic engineer, transferred to Newton District as assistant traffic manager.

S. I. Daniels, machine switching traffic engineer, transferred to trunk traffic engineer.

Andover on the Job

T 10.40 A. M., Mr. Shattuck of Andover, passed a call to Hillsboro, N. H., for Mr. Arthur Starr, who was spending his vacation on a farm. Mr. Shattuck was unable to furnish any other information. The operator called Hillsboro and was informed that he was unknown. The operator then tried the post office, only to find they had no telephone. The operator then decided to try the largest farm in Hillsboro Upper Village, and found on calling a subscriber that Mr. Starr was known, but the farm where he was stopping was a mile from there and was not connected by telephone. Subscriber then remembered that while driving that morning, he saw Mr. Starr at a farm some three miles distance. Subscriber then very kindly gave the operator the number of the farm where he could be reached. Operator called the station and was told Mr. Starr was out in the field and could easily be brought to the telephone.

Brides in Traffic

TRENE A. O'KEEFE, Arlington, becomes Mrs. Edward McKenna.

Mary E. Sheehan, University, becomes Mrs. Miles Rowland.

Helen J. Glynn, Jamaica, becomes Mrs. James McCabe.

Cecelia Crowley, Jamaica, becomes Mrs. Edward

Elizabeth Hogarty, Jamaica, becomes Mrs. Peter

Anna F. Hyland, Brookline, becomes Mrs. Hugh Mullen.

Catherine L. O'Connell, Brighton, becomes Mrs. George Flawsen.

Mary A. Coughlin, Wellesley, becomes Mrs. Alfred Marchant.

Nora T. Tully, Centre Newton, becomes Mrs. James McSorlev.

Lucille B. Gentes, Newton North, becomes Mrs. Warren Quinn.

Mallanaphy, Brighton, becomes Mrs. Irene William T. Laffey.

Mary I. Leonard, Hull, becomes Mrs. Edward Donahue.

Mary J. Kelly, Back Bay, becomes Mrs.

Bertha M. Colley, Fort Hill, becomes Mrs. Fred H. Lane.



HORACE S. HOLT, Associate Editor SPRINGFIELD, MASS.

Plant Man Prevents Serious Fire

James C. Sandgren, a troubleman at Southbridge, undoubtedly saved the home of James Simpson, known as the Rice homestead, in Sturbridge, from being destroyed by fire Monday. October 10th.

The roof had caught fire from the chimney and there was no male help at hand to assist in the work of putting out the fire. Mr. Sandgren chanced to be going by just as Mrs. Simpson was rushing to the yard for help. Noticing what was wrong, he did not stop for his ladder which he had on his truck, but climbed to the roof and with the aid of ropes which were thrown to him, he pulled up two fire extinguishers and emptied the contents down the chimney.

A little later, upon going to the attic to see if there was fire there, he discovered sparks just igniting the woodwork. Reaching with his hand, he scratched away the fire, putting the finishing touches on all danger from fire for the time.

A serious fire was without doubt prevented, as it was a very windy day, and had the fire gained headway, much damage would have been done.

One That Means a Whole Lot

A. HOLT, District Traffic Chief at Pittsfield, received the following from James E. King, Director, Relations with the Press, of the Institute of Politics:

At the close of the session of the Institute of Politics which has brought about so many important relationships between Williamstown and the world at large, many of them requiring prompt and sure use of the telephone, I wish to address you an expression of the very sincere appreciation which I feel for the service which your Williamstown exchange has rendered not only to me but to all in official connection with the Institute.

The long-distance service given by the North Adams Exchange, has been literally remarkable. We have at all times had a most considerate personal attention to our calls by your toll operators and have frequently been placed in communication with such points as New York and Boston at little more than a moment's notice. Moreover, local service has been of the best. Time and again the members of your Williamstown office have obligingly given us assistance of a special nature—such as calling us back when busy numbers became free—which is of so much value and helpfulness when work is being accomplished under emergency pressure.

In passing, I wish especially to mention the helpful attitude assumed by Mr. Scribner, of your Williamstown staff. He was at all hours ready to undertake whatever repair work was necessary to insure the continuity of our service. The Institute of Politics, planned chiefly for use and instruction of the limited membership attending its session in this quiet Berkshire town, met a demand from all the nation, asking for a share in its message. In helping to give it a voice that would reach to the distant points whence this demand came, your Company contributed much.

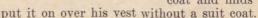
One on Carl Smith

IKE every one else within 25 miles of Springfield, Carl Smith, chief clerk to the Plant supervisor at Northampton, attended the Eastern States exposition.

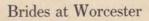
Carl and his wife went with Mr. and Mrs. Gillis

in Carl's car. Before starting Carl slips on his overcoat, as the evening was chilly.

After seeing the sights, the party take their seats at the horse show. The hall gets warm and Carl starts (!) to take off his overcoat and finds that he



So he is compelled to sit through the evening with his overcoat on and perspire. Although he vows to Mr. Gillis that he is perfectly comfortable and is keeping his coat on because he feels the need of it—and we venture to say that he told the truth insofar as "feeling the need" of it went.



MISS LORETTA BRENNAN, a toll supervisor, was married on October 11th to Mr. Frank B. Broderick of Worcester, and is now at home to her friends at 4 Arthur Street.

Miss Elfreda P. Wikstrand, chief clerk to District Chief Harvell, was married on October 15th to Donald Trow of Worcester.

Division and District Wedding

THE division office and the Springfield district office always work in close harmony in their business relations.

Miss Mildred Leonard, stenographer in the division office, was married on October 18th to Mr. Francis Carty of the Plant chief's office.





LEON W. WEIR, Associate Editor PORTLAND, MAINE

A Regular Pair

HERE are a couple of sturdy youngsters, whom we hope will grow up to be telephone men. They are Robert and Franklin Saunders, 19 months' old sons of Mr. and Mrs. Wm. C. Saunders, of Machias. Mr. Saunders is combina-



Robert and Franklin Saunders, age 19 months; weight 25 pounds each tion man, located there, and Mrs. Saunders a former telephone employee. The boys weigh 25 pounds each, and are growing rapidly.

Big, But Safe and Sane

A NOTICE regarding the removal of celluloid advertisements from our instruments was sent recently to subscribers. One was returned to the Lewiston manager with a note written on the reverse side as follows:

"The important notice on the other side of this paper does not find me guilty. Telephone No. — is innocent of such attachments as you mention. I did, personally, something dreadful; namely, stood the receiver on the table instead of hanging it in its place, and left it so all night. The biggest man I ever saw came to investigate. In my fear that he would eat me alive I forgot to inquire what happened. What did? Please call me up and tell me."

The biggest man the lady ever saw means either Ken Fuller or Joe Tarr. We're going to send 'em both over to do the explaining.

Present Aged Couple with Telephone Service

THAT the people of Freeport appreciate the value of telephone service was demonstrated the other day, when neighbors of Mr. and Mrs. Lincoln Brewer presented to them a year's telephone service paid in advance. Needless to say that Mr. and Mrs. Brewer were greatly pleased.

"Change of Name" at Bangor

THE Bangor commercial district has a new financing cashier if one can believe the name signed to the district salary checks, even though the handwriting is the same. The banks, on October 24th, opened new accounts with K. M. Constantine and closed out the account of Kathleen M. Atherton. The cause was a wedding ceremony in St. John's church, Bangor, on the same day. The lucky man was Lewis E. Constantine.



MRS. LEWIS E. CONSTANTINE

The accompanying snapshot shows Mrs. Constantine at her desk, decorated for the occasion the morning of the day she left the office as Miss Atherton. The things shown on the desk are a few of many which go to decorate her new home. The staff photographer was unable to find a camera large enough to take in all the "good wishes" of her associates.

Patent Applied For

RS. E. H. TARR of Lewiston has a new doorbell. Somebody gave Joe an obsolescent horn from a badly wounded flivver. Dry cells and a magnetic attachment did the trick, and now when you push the button at Joe's front door all the kids in the neighborhood run for the sidewalk. It is not as far-reaching in sound as Auburn's fire whistle, but fully as effective, and being pitched higher than Joe's voice, is readily distinguishable.

Notes from Biddeford

MRS. GEORGE WEST called the chief operator, October 5th, and said she wished to thank all the operators for their excellent service recently. On account of sickness, it has been necessary to use the telephone frequently and on every occasion the operators have been prompt and courteous.

Miss Catherine G. Neilon, operator at Biddeford, Maine, has left the Telephone Company and en-

tered Gorham Normal School.

Miss Hope Marshall, telephone operator in the Biddeford exchange, who left for Montreal, October 1st, to be married there, was delightfully showered by her co-workers Friday evening, September 26th, at her home on Western Avenue. It was a linen shower and the girls presented Miss Marshall with some very handsome and useful gifts. Delicious refreshments were served by the prospective bride's sister, Mrs. Sidney Harris, and the evening was spent in games, music, and general sociability. The party closed at a late hour, all wishing Miss

Marshall a prosperous and happy future.

One of the most cleverly planned and delightfully enjoyed pre-nuptial events ever undertaken in this vicinity was that given last night by operators of the local exchange of the New England Telephone Company to Miss Ruth Hill, who severed her connection with the Company October 8th, and whose marriage to Roy M. Fogg, of Saco, is to take place in the near future. The party was in the form of a miscellaneous shower and was given at the home of Miss Hill, 19 Cutts Avenue, Saco, Me. Miss Hill had been invited to pass the week end with Mrs. Wesley Scamman on the New County road, and did not return home until 9.30 Monday evening. On arriving home she was taken through the front door and into the parlor, which was in darkness. When she entered the parlor the lights were thrown on and she was confronted by a gathering of her fellow operators and friends who informed her that they had taken possession of the home and that the serenading proceedings were in their hands for the evening. Miss Hill was much taken back by the unexpectedness of the visit, but quickly recovered her composure, and thanking the young ladies for the honor expressed by the visit invited them to make themselves at home.

Cupid Claims Chief Operator

CUPID has again invaded the Rockland office, this time taking our chief operator, Mrs. Hazel M. Foss, who became the bride of Frederick W. Powers, cashier at Armour & Company's plant of Rockland.

The morning of October 29th, her last day with the Company, on entering the operating room, Mrs. Foss found her desk gaily decorated in yellow and white crepe paper, with a beautiful bouquet of yellow chrysanthemums in the center. Beside the desk stood a handsome mahogany tea-wagon, on which were a half dozen silver tea spoons, a silver sugar shell, and a very handsome china tea set. These were the gifts of the employees of the Rockland, Camden, North Haven, Tenants Harbor, Thomaston, Vinal Haven and Waldoboro offices, all of whom hold Mrs. Powers in high esteem. Friends in the Bangor office sent a very pretty picture.

Thirty-three Years in the Service

E. DAVIS, "Gene," found 33 roses on his desk on October 21st, and knowing that he could not have led anybody to believe that he was only 33 years old, began to figure and finally woke to the fact that he had on that day completed 33 years of service for the Company, which is now so well known since the week of October 17th. "Gene" is in charge of the toll test room at Portland, and known to everybody. If he can get in 33 years' more service before he retires, we hope he will. As one who would be glad to contribute for roses for him again next year we would suggest that the 30 be left out; get him Four Roses.



Nine Reasons why Northeast Harbor Had Splendid Telephone Service
Last Summer.

More Stars Than One

THEY say the Portland exchange certainly does shine, with three perfectly new diamonds on the switchboard.

Obliging

SUBSCRIBER: "Give me Portland 4005."
TOLL OPERATOR: "What is your number, please?"

SUBSCRIBER: "Don't know."

TOLL OPERATOR: "Will you inquire, please?"
SUBSCRIBER: "O never mind the number. I'll stay right here and hold the line."



GEORGE F. PARKER, Associate Editor RUTLAND, VERMONT

Who's Who in Vermont

NE of the veteran telephone men in Vermont is Wesley J. Murdock, whose picture graces this issue of the Topics.

Mr. Murdock entered the telephone field in 1901, and his first work was for the Addison County

Telephone Co. as night operator at Middlebury, Vt., working under Allan Calhoun. At that time Middlebury had about 100 stations and it has now grown to over 500.

In 1903, he went as lineman under Manager E. L. Kelley until 1906, when he worked for W. H. Davis, manager of the Champlain Valley Telephone Company, as combination man at Middlebury after this exchange was taken over by that company.



WESLEY J. MURDOCK

In 1907, he was made manager of Vergennes, Middlebury and Salisbury, Vt., exchanges, under Frank H. Chandler, a position he held for many years until taken over by the New England Telephone and Telegraph Company, in 1917, when he was made combination man at Middlebury, the position he now holds.

At one time Mr. Murdock was one of the directors in the Addison County Telephone Co. He has had many interesting experiences in the telephone business, and, like others who work in small exchanges, has done work in many branches. Mr. Murdock is, of course, well known by most of the Vermont employees and to the great majority of subscribers in the large territory he covers. He is called by his first name.

He recalls how several years ago he took M. B. Jones, now our president, to Bridport when the latter was in quest of some rare old books, and Mr. Jones expressed his opinion that Mr. Ford made the best car in the world.

(Editor's Note—While Mr. Jones, of course, expressed his honest opinion, we have a sneaking idea that he would have hedged a little if he had continued the trip one hundred miles more.)

Mr. Murdock has held high office in the Masonic and Knights of Pythian Orders and is a Granger.

He is a capable workman, unassuming in manner and makes a splendid man for our Company. He is married, has two beautiful little children, and makes his home in Middlebury and the Topics wish him and his family many years of happiness.



Homes of famous telephone men who have or do make their residence in the State of Vermont. It is the former home of E. K. Hall, vice-president of the American Telephone and Telegraph Company, who lived for a time in Brattleboro, Vt.

Personal Service

LAWYER in Rutland, Vt., passed a call for a party in a city in New York state, giving only the name of the party he desired. The call was referred to the supervisor, who handled The terminating exchange gave a report of "No Telephone." The subscriber then asked that another city be tried, with the result "Nothing listed." The supervisor questioned the subscriber to find if he had any address at all. He gave the last address he had and it was found that the man had been employed there about a year ago. The report was given that the man's wife worked in the city and the supervisor located her. She gave the report that her husband was traveling now. The Rutland subscriber was satisfied with this report and decided to talk with the man's wife. In appreciation of the good work done by the supervisor she was commended by the subscriber.

Bride at Rutland

N November 7, 1921, Miss Mabel Y. Poulin, clerk to the chief operator at Rutland, Vt., was married to John Lyston, a chemist of Norwich, Conn.

Notes from the Field

FOR a time news from Putney, Vt., Heine Neils, Class F territory has been very scarce, but now he bobs up again with the announcement that he is the father of a future telephone employee.

Manager Russell, of Burlington, Vt., who has been ill for a long time is somewhat improved. It is hoped by his many friends that he will soon be well and about again.

Manager Walley, of Rutland, who for a time was off duty on account of poor health is again back at his desk much improved.

Manager Buzzell, of Bellows Falls, has been substituting for Manager Russell at Burlington, Vt., during the latter's illness.

Foremen LaChance, Parker, Hodgdon and B. W. Reynolds, with crews, have been at work in Massachusetts helping out during the recent big storm.

Just before Telephone Week, a subscriber in one of our exchanges called the office and said that she had received the invitation for free service for one week and wished to express her thanks. She evidently did not read the invitation carefully.

All employees are invited to join the First Aid and Accident Prevention classes in Vermont.

100 Per Cent. Subscribed

E VERY employee in the Manchester, Vt., exchange has subscribed to her full capacity for the A. T. & T. stock of the May, 1921, issue.

Traffic Notes

SIBYL B. DAY, operator at Bellows Falls, Vt., resigned her position and has moved to Florida.

Clara B. Stevens has taken the position of clerk to the Rutland, Vt., chief operator. Miss Stevens has been in the employ of our Company and an associated company for over eight years.

Winifred M Ellwood, operator at Rutland, Vt., married Roy C. Bean, brakeman on the Rutland Railroad.

Appreciation of Good Toll Service

A TRAVELING salesman for a bonding company passed a series of calls numbering forty. Having received very good service, at Rutland, he called the supervisor to find out the numbers of the operators handling the calls, whereupon he immediately complimented them on their efficient service.



SPEAKING OF THRIFT AMONG TELEPHONE MEN

At Brattleboro, Vt., the exchange plant force consists of Wire Chief H. C. Shaw and four men, Messrs. Alfred Darling, F. W. Strong, C. W. Tidd and A. M. Thomas.

All of these men own Liberty Bonds, are paying for Telephone Stock and in addition own their own homes, pictures of which are shown in this month's TOPICS, all of which are houses to be proud of.

As this home-owning record is 100%, it can't be beat in other Vermont exchanges, although perhaps equalled, and as the owning of a home undoubtedly makes for better citizenship, these men are to be congratulated. Their homes are as follows:

Top row, left to right: Home of H. C. Shaw, home of Alfred Darling, home of O. W. Tidd. Bottom row, left to right: Home of F. W. Strong, home of A. M. Thomas



WILLIAM J. HURLEY, Associate Editor
MANCHESTER, N. H.

It Might Have Been Worse

HILE Massachusetts is busily effecting a restoration of its service due to the recent sleet storm, New Hampshire is rejoicing gleefully that it escaped with but a few minor breaks.

While it is true that we experienced a heavy snowfall followed by sleet and rain, our service interruptions were comparatively slight when surveying the heavy damage in other districts.

To be frank, with the tenacious manner in which the snow and ice clung to the wires we predicted possible serious results. Divine Nature smiled on us, however, sending the rays of a heated sun to free the plant of its Alaskan-like coverings.

The Nashua area, including besides the city of Nashua, the towns of Mason, Milford, New Ipswich, Hudson and Greenville, was the most seriously affected.

Hampton, Epping and Raymond in the Portsmouth district also showed the results of the storm.

We are, however, glad to aid our sister state by sending three of our gallant crews into Massachusetts to aid in the reconstruction.

New Hampshire Notes

M ISS MABELLE ESTELLE HANSCOM, commercial cashier at Rochester was married recently to Frank D. Manning.

Joseph Lacasse, who recently underwent an operation at Boston, is showing rapid improvement and expects to return to work soon.

Joe MacIntyre, Archie McCaffrey and George Brown have been selected to take a special course of first aid under the expert tutelage of Dr. Bullock. After the completion of the course, this trio of "medicos" will endeavor to expound preventative accident measures intended to lessen the number of accidents in our territory.

Miss Winnifred Sawyer, senior operator at Milford, resigned to take the nuptial vows.

Here's wishing you luck, "Winnie."

In a verbal message to Miss Johnson, chief operator at Concord, Mrs. Charles Cook stated that she is desirous that the operators know how much she appreciates what they have done for her during the fall; she has had an abnormal number of calls both for church and club work, and the operators were just as "sweet" with the last call as with the first.

Something new—the "phone" method of artificial respiration, as per lineman's appellation.

The services of Division Foreman Campbell have been loaned to Western Massachusetts to help in putting that area back on the map.

Line Foreman James H. McKeon of the Dover Area is at present confined in the Naval Hospital at Chelsea, Mass., undergoing treatment for stomach trouble. We all hope for an early recovery.

A. J. Smith of Dover Area recently passed an examination for rating as lineman, class "A."

Heard Marshal Foch by Wireless

HEARING Marshal Foch by wireless proved to be an extremely delightful incident in the lives of a few fortunate Concord residents, recently.

Frank W. Sanborn, a prominent citizen of the capital city and a keen student of the wireless telephone, together with a few invited guests heard the address delivered by Marshal Foeh in Carnegie Hall, Pittsburg, Pa., and needless to state, enjoyed the remarks of the commander of the victorious armies in the World War.

Not a word was lost during the entire address. By the mere placing of the receiver of the wireless telephone against the transmitter of the N. E. T. & T. instrument, more than one person is privileged to "listen in."

Mr. Sanborn's wireless station has a communicating power of over 600 meters. It is in almost nightly communication with the Westinghouse station at Pittsburg and others in different parts of the middle states.

The Westinghouse house station is connected with instruments in Carnegie Hall in Pittsburg, which made it possible to hear all of the speaking and music at the gathering in honor of Marshal Foch.

A Return Visit

BY invitation of the Durgin Silverware Company of Concord, a group of traffic employees and Manager Tapley inspected the factory where they were shown how sterling silverware is manufactured.

The inspection proved to be very interesting and the remaining forces are planning a visit in the near future.

The concern is one of the largest subscribers in the Concord exchange, being equipped with a

manual private branch exchange.

A large number of their employees visited the exchange during Telephone Week, where they received the same hearty welcome as that accorded to the telephone employees during their recent visit.

Saves Life of Fellow Worker

DISPLAYING a remarkably cool poise, Harold R. Blake, cable splicer, effected a spectacular rescue of a brother cableman from serious

injury on a recent morning at Milford.

Timothy P. Haley, cableman's helper, was in the act of ascending a pole when his hand came in contact with a metal pole step, which it developed was crossed with foreign wires carrying 2,200 volts. A startled cry was the means of attracting Blake's attention to Haley, who was vainly trying to release his hand from the step. Blake with a rapid descent was soon at the side of Haley and immediately pulled him from his precarious position, averting what might have been a fatal injury. Blake carried the injured member to the ground, hailed a passing automobile and drove hurriedly to the nearest physician. A thorough examination revealed Haley suffered a burn on the left hand besides a slight stock to the nervous system.

Blake has since received the congratulations of his co-workers for the dauntless courage which he

exhibited.

Good Work by Manchester

MANAGER WESTON received the following from Robert W. Blood in recognition of good service rendered by traffic forces at Manchester:

Dear Mr. Weston:

Again I have the pleasure of complimenting your night toll service operators, who late tonight found Governor Brown for me in Boston when all other means at our disposal, including the efforts of Boston newspapermen, had failed.

We always seem to get prompt results when we ask your toll service operators to find for us a much wanted

Will you please extend them the thanks of our night news staff?

What Is Personal Service?

PERSONAL SERVICE is the fundamental basis of all successful telephone operation; it is the act of serving a particular person. This is exactly what each individual making up the great army of telephone employees is doing. Because of the manner in which a Company of this

size has to function, each employee does not serve by coming into direct touch with those who use our service, yet the work of this employee is just as important as that of the employee who does come in contact with the patron in making the service sold a very personal service.

Upon the manner in which patrons are served depends the real success of our Company. To be truly successful, we must obtain and hold the goodwill and confidence of our patrons. Undoubtedly the people better able to obtain this feeling are

the people better able to obtain this feeling are those with whom the patron comes in direct contact. Our job, then, is to see that a quick, accurate and courteous service, in other words a 100% service, is delivered at all times. In order to deliver this service there must always be teamwork and cooperation. Often it is necessary to make a sacrifice in order to deliver this grade of service; but when this is necessary the great satisfaction gained because of the service given is certainly a joy.

The personal touch put into the particular job each has to do adds to its dignity and makes one feel more essential to the Company and less of a cog in a huge wheel. It also breaks the monotony of each day's work and adds to the pleasure of

the job.

A Few Don'ts for 1922

ON'T nag. Many a good man has been nagged into inefficiency.

Don't humiliate a man by advertising his shortcomings from the housetops, but quietly point them out to him. He will lose an arm for you.

Don't treat your men as if they belonged to the kindergarten class. Chances are they are better posted than you are.

Don't be afraid to compliment an employee for

some commendable service.

Don't forget that where some of your men are making mistakes that cost dollars, you may, by pursuing a mistaken policy, cost the company thousands.

Don't forget that a man who will stand for a "cussing" because of some mistake or oversight is not the kind of man who is able to help administration. He should be fired.

Don't forget that while you are checking everybody else up, it might be a good thing for you to

make a careful inventory of yourself.

Finally: Let each action be sweetened by a little of the milk of human kindness. It will cause you to have pleasant recollections after you have been laid on the shelf and enable you to look your old associates in the eyes.—C. E. Carson, in *Forbes Magazine* (N. Y.).

May the Best Be Yours in 1922



FRANK H. PARKER, Associate Editor 220 DEVONSHIRE STREET, BOSTON, MASS.

"I'll Make Room" And He Did!

HE sketch below tells a story of a booth recently installed in a store at Ocean Grove, a small summer resort, in the Fall River

Exchange district.

Mr. Chace, the proprietor, postmaster, newspaper agent and general live wire of the community, had asked us for a booth for the public telephone in his store. He was told that the only available booth was a large one, and it was doubtful if there would be room for it. His answer was, "Send it along, I'll make room for it."

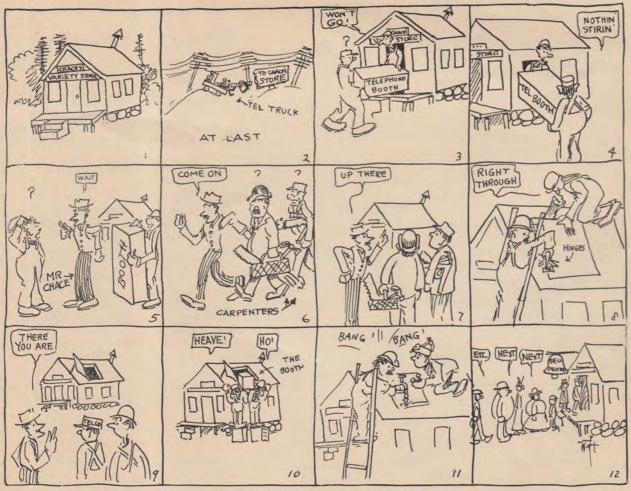
After waiting some time, we finally obtained a booth and sent it along. When the truck with the booth arrived our men were given a glad welcome.

The news quickly spread that Mr. Chace was to have his booth at last.

This joyous outburst was somewhat gloomed when it was found the booth could not be taken in through the door. No amount of engineering on the part of our men could squeeze it through. No better result was reached on trying the windows.

Our crew was about ready to give it up as a bad job when the proprietor decided that it was up to him, as he had previously said, "I'll make room." "Boys," he said, "if you fellows will stick around a few minutes, I'll get a couple of carpenters to take off part of the roof and we'll get it in that way."

As good as his word he did so, and now Mr. Chace and Ocean Grove have a booth.



THE TALE OF THE NEW TELEPHONE BOOTH

Plymouth's Party

With apologies to "THE NIGHT BEFORE CHRISTMAS."

TWAS Thursday night, and all thru the crowd,

Ran whispers and giggles exceedingly loud,
As they stood on the corner of the street set apart
And clustered 'round something that looked like a cart.

The excitement was grow-

ing as church folks came

Then came utter silence.

What was it all about?

For all of a sudden there
arose such a clatter

That folks turned around to see what was the matter.

But not a thing could they see but a throng gone quite mad

As they pushed someone into that cart that they had.

And before anyone could even turn around



THE BRIDE

Down the Main Street they went with a bound, Everyone cheering and screaming and singing, While every few feet a bell would keep ringing. They didn't attempt to slacken one step Till they reached the home of Mrs. George Phaneuf. Who was the incentive? The bold agitator? None less than Miss Goodwin, the local Chief Operator, Whose forthcoming marriage is the talk of the hour. And the hilarity? Only an innocent shower. When all were seated and had gotten their breath, Mary Rogers commenced "Cleopat's Hymn of Death," And a parson strolled in, all solemn and starched, While back of him the glorified wedding-group marched. Mae Horgan, the bride, bedecked all in white, Except her green hosiery, was charming, quite. The groom, Sara Abell, from spats to silk hat, Wore the look of a mouse just escaped from a trap. The bridesmaid, Edith Andrews, was exceedingly merry, With a hat from Paris with a bird and some berries. While the best man, Charlotte Bumpus, with a quart on his hip.

Saved the groom when he'd lost the old parson's tip.

The parson, Anna Carleton, the binding words solemnly spoke,

And the couple were tied with Cordage Company rope. Then they all kissed the bride, sympathized with the groom, And smilingly wobbled out of the room.

When the laughter subsided, and the cheers and the noise, Someone opened the big double doors;

Someone opened the big double doors;
And there was the dining room, a gorgeous sight,
With table bedecked all in pink and in white.
While a miniature bride and a groom stood guard,
And each place was marked with a doll on a card.
But listen! A messenger entered the abode
And said that he carried an awful load
Of parcels for one Mary Goodwin, was she there?
So Mary was escorted to the nearest chair,

Where one after another each package they'd pass,
And exclaim in surprise at linen and cut glass;
When each one was opened they all gave a cheer
And someone yelled, "Show the photographer in here."
So pictures were taken mid gales of laughter,
And luncheon was served immediately after.
Then just after the new day was dawning,
They said their adieux without very much yawning
And homeward tramped with hearts so light,
Those telephone girls sure had a big night!

-By Charlotte W. Bumpus.

Traffic Promotions

THE following promotions have been made in Lynn: Lillian M. Magrane, from junior supervisor to supervisor, effective November 20th; Ruth M. Sine, from junior supervisor to supervisor, effective November 20th; Mary K. O'Brien, from local operator to junior supervisor, effective December 4th.

New Plant Ratings

THE following employees have successfully passed examinations for the ratings indicated: Sub-station installer, class "C," Ralph E. Nightingale, Taunton; cable splicer, Jerry J. Spillane, Brockton; Curtis R. Gifford, Taunton.

Marlboro Wins Praise

MARLBORO, too, came in for praise last month. Manager Stevens received the following letter from Joseph H. McPherson:

I wish to commend your operators for as prompt a service on a toll call as I have ever had the opportunity of witnessing, when the other evening I had occasion to call my own home, in Somerville, from the office of Mr. R. H. Jameson, local manager for the Marlboro Gas Co. I had hardly time to put down the receiver when the bell ringing notified me that the call had been put through and my party was ready to talk. I think that I can safely say that it took no longer to get this toll call completed than it would take to get a connection with any of the local exchanges in Boston from my office in the Fort Hill district. We all have so much criticism of the Telephone Company's service now and then, that it is only fair that such excellent service as the above should be commended.

And this is what Joseph Burnett wrote Mr. Stevens:

During the terrible storm we have just gone through, I want to write and tell you what wonderful work I think the Marlborough telephone exchange has done. I have never seen such courtesy and patience shown by the operators. I wish to compliment them and you and assure you that we appreciate their good work.

A New Year is ahead of you. What you make of it is up to you.

One of Our Pioneers

If there is an employee in the Eastern Massachusetts division of the New England Telephone and Telegraph Company who does not know Mr. George W. Davis, dean of telephone employees, of that division, it is due to Mr. Davis's quiet, un-

assuming manner, but one thing is very sure, every plant man in the Eastern Massachusetts division knows him. Just ask any one of them if they think George can walk, and it's a safe bet that the answer will be, "I'll tell the world that he can."

George W. Davis entered the employ of the National Bell Telephone Company at Portland, Me., April 20, 1880, and has, therefore, enjoyed



GEORGE W. DAVIS

nearly 42 years of continuous service, although no one would ever guess it from his erect figure and spry step.

At that time there were no underground wires, neither were there any telephone cables and very few poles had been erected. The wires were most all fastened to the roofs of buildings. Numerous types of instruments were in use. The transmitter was usually of the Edison carbon type, but the call bells were of the single stroke variety, at first, being replaced later by various types of double stroke bells such as the "Post," "Williams" and "Gilliland" type, some using gears, some using a belt, and others using a friction gear.

About this time a sleet storm broke down most of the wires and thereafter poles began to be placed upon the streets. Shortly thereafter aerial cables began to appear. The first being from the central office to the Whipple block over the roofs of intervening buildings. The late James Sugdon of Boston was sent to Portland to splice the joints.

At that time two male operators were employed to operate the board and they stood while working. Later girls were employed. Miss Facey, now retired, being the first female operator.

In 1892, Mr. Davis was transferred to Boston and helped install the Tremont office. Among other men whom he worked with on that job was W. F. Crowell now division superintendent of traffic, State of Maine division.

From here, Mr. Davis went to work in the electrical department at Farnsworth St., South Boston, as foreman, where he remained for many years.

In 1916, he was transferred to the Eastern Massachusetts division as electrolysis testman, and is still actively engaged in that capacity.

The Spirit That Wins

A T 10.16 P. M., recently, in Salem, the fire alarm sounded 43, which is the Town House Square box. Every operator going off duty at 10 P. M. had left the building and was on her way home. As soon as this box was sounded, each one of these girls, realizing that this meant heavy business for the night operators, hurried back to the exchange and very efficiently handled the business, which was extreme. Miss Barry, the chief operator, coming into the exchange a few minutes later was pleased to see the excellent co-operation of these girls. The girls who reported back were Misses Ellis, Regan, Cahill, Meade and O'Brien.

This Happened in Salem

A GLOUCESTER subscriber at a public telephone passed a call for Boston. When the call was ready, the operator requested the deposit of money. The subscriber said: "I am using a Public Telephone." The operator again requested the deposit and the subscriber replied: "Operator, I guess you do not understand, I am using a Public Telephone." When the subscriber was connected with the supervisor, she explained how she had walked twenty-five minutes to pass the call from this Public Telephone, as she thought it was free.

A Few Bouquets

DURING the past month many letters of commendation have been received at headquarters. Here is one that Manager Montgomery received at Framingham from H. L. Dewar commending the Medfield force:

Recently we had occasion to call a person of whom we knew only the surname. It seemed almost impossible and the call was of great importance.

After working on our own initiative for over an hour, we told the Medfield operator our troubles. In fifteen minutes we reached our party.

This is not the first occasion in which the Medfield exchange has made our telephone one of the greatest assets in our business, and we would like very much to express our gratitude to the operator and operators of the Medfield exchange, whom we do not know, through you, as we receive unquestionably fine service both day and night.

Assuring you that we feel the Medfield exchange is as efficient as any in the system, we remain

The following letter which was received at the Salem exchange from James R. Wood shows personal service by Mrs. Etta Curry, a toll operator.

This morning, about 2.30, I received a telephone call from Attorney William McSweeney of Salem, Mass., to the effect that Mr. John Rauch of Lakecroft Inn, Hamilton, Mass., was in the Peabody Hospital in a very serious condition. Mr. McSweeney desired me to notify Mr. Rauch's relatives. He (McSweeney), being Mr. Rauch's attorney, knew that I was a personal friend of Mr. Rauch and thought that I knew many of his relatives. In reality I knew of his relatives, but did not know their addresses.

I started to call up Lakecroft Inn and the Peabody Hospital and the Salem operator who was on duty grasped the situation, and said, "I will do anything I can to help you, Mr. Wood."

The result of her assistance, such as calling the police and helping me in having them locate relatives, was that inside of an hour I had all the relatives in this vicinity

on the way to Peabody to the hospital.

I wish to thank this operator very kindly for her wonderful assistance and her ability to grasp such a serious situation so quickly. I asked her for her name or number, as I had in mind that I desired to write you and compliment you on having such a competent operator, but she said she was only doing her duty and did not care to give her name. I felt I should take this opportunity to call this to your attention, and I wish you would properly thank this operator for her kindness. Also, I might suggest that if other operators should be informed as to the assistance this operator rendered us it would benefit your Company as well as the operators.

At times we all complain about telephone service, but after the service I received last night from the operator above mentioned, I feel I never would complain again.

If you can see your way clear to do so, I wish you would send me the name of this operator, as I know Mr. Rauch's sisters would like to send her a personal letter, thanking her for her kindness.

And this is what Manager Bennett received at Haverhill from Mrs. J. A. Norris:

My dear Mr. Bennett:

No, this is not to scold. On the contrary, I have the very great pleasure of telling you of the great effort and kindness made by the Chief Operator at 8.50 o'clock last evening.

So much patience and cheerfulness under hard circumstances I have rarely met, and I want to thank all parties concerned.

I thank this operator so very much and I thank you for having so able a person. She is surely a comfort to the public I know, and she is a very great comfort to me.

I do not know if the rules of your office will permit you to tell this most able person of what I write, but I hope

they do.

I almost forgot to say that I asked the Chief Operator for her name, but that not being allowed, she gave me her number instead, which number is 6-0, if that's the way to write it. At any rate she will know.

Toll Supervisor Callahan handled the call referred to.

Blind Man's Bluff

M ISS Kennedy, our branch exchange operator in Lowell, recently had an experience which not only called upon her emotions to the extent of lending assistance to a subscriber in distress, by giving personal service of great value, but also by a keen desire to lend financial assistance to the extent of paying the toll charges on his call to Boston.

When Miss Kennedy arrived at her board in the morning, she was greeted by an elderly gentleman who asked her to call a certain industrial plant in Newton. She established the connection and in due form collected the thirty cents initial deposit. The subscriber was so nervous that he could not carry on conversation effectively and requested the operator to talk for him. He was trying to obtain a position in any capacity with the

Newton firm and she did everything in her power to assist in the worthy cause, but to no avail. The reply came back that there was no work available. Then the trembling subscriber asked her to tell the foreman that it was Peter Blank calling. Even though Peter Blank was well known to the foreman, all attempts proved futile. Hearing this, the elderly gentleman rose to his feet, placed his time worn derby hat on his gray head, and picked up his cane which he had carefully placed beside his chair. He then told the operator that he had tried in vain to find some kind of work and hardly knew what to do. Thanking her profusely, he wearily shuffled out of the office.

That noon time, as Miss Kennedy was on her way home to lunch, she passed a blind man standing on the side walk, his hat in his hand, smoked glasses over his eyes to protect them from the excessive light of noon-day, and the ever protective cane hanging on his arm. There, urging the passersby to assist a blind man by purchasing his wares, consisting of shoe laces and pencils, stood none other than Peter Blank, the man who had attempted to obtain work in the morning. But his sight was unimpaired in the morning.

Necessity, surely, is the mother of invention.

New Chief Operator at Shrewsbury

MRS. C. F. WOODWARD, who has been appointed Chief Operator at Shrewsbury to succeed Miss Russell, brings to the office an experience of eight years as operator in the Clinton Exchange, and also a wartime experience of nearly three years in the, at that time, busy exchange in Ayer.

Dr. Bullock Lectures on First-Aid

In connection with Safety Week, at Haverhill, Mass., Dr. Edwin A. Bullock gave a very interesting and helpful lecture in the high school hall. Representatives from the various public service corporations were present. First-aid was explained fully by Dr. Bullock, with illustrations, among which was a new method of removing a man from wires. Those present voted the evening well spent, and were very grateful to Dr. Bullock for his interesting lecture.

The Way They Sound to Us Sometimes

OPERATOR: "This line is busy with a toll call." Subscriber: "Wh-a-at?"

OPERATOR: Repeats phrase.

SUBSCRIBER: "This line is busy with a coal

car, did you say?"

SUBSCRIBER (after receiving second don'tanswer-report): "Well now will you please tell me what good my telephone is to me if I can't talk to people when I want to?"



RHODE ISLAND DIVISION



DONALD COWELL. Associate Editor PROVIDENCE, R. I.

Electrized Man Given Prompt Aid

N Saturday afternoon, October 22nd, Fred Sellew, of the treasurer's office, while driving out to Plainfield Pike with a friend, observed a crowd gathered about a prostrate man near one of the Company's machines. Mr. Sellew stopped and discovered that the man, Lineman Bonsfield, of the West office, had been working above on our wires which run along the road. Somewhere along the line our wires had become crossed with a high tension circuit and 2300 volts had passed through his body, rendering him unconscious. His belt probably saved his life, as he hung to the pole suspended by his belt until some Italians, living nearby, discovered him. The lineman by this time partially regained consciousness and directed their efforts while they placed a ladder against the pole and carried him to the ground, where he was cared for by a wife of one of the Italians.

Mr. Sellew took the injured man into the Company's machine, and leaving his friend to bring his, Mr. Sellew's own car, drove into the city, passing but one doctor's office, who proved to be out. From there Mr. Sellew drove to the West office, from where he telephoned various doctor's offices until one was found in, whereupon he drove to the office, taking Mr. Bonsfield in the car.

Fortunately Mr. Bonsfield was not burned, nor seriously injured, and although weak and shocked, he was able to be up and about that evening.

It was an instance, however, of intelligent service promptly rendered, saving, in all probability, more serious consequences.

The high tension wires were located and the danger removed.

Company Service Story from Bristol

MRS. WM. L. LECLAIR of Bristol, tells the following story of service as rendered in that exchange:

Last night when I arrived home, I found my front door locked and everyone in bed. I couldn't seem to waken them, so I went downstairs and called my number from there. We are both on the same line and I had to keep hanging up my receiver, and of course the operator had to keep telling me to hang up my receiver in order that she might ring my letter. After she had rung about five minutes, I told her not to bother any more, that I would try the door bell again. But she said it wasn't any trouble, so she rang several times until I said I guessed it was of no use and that I would have to sleep in the hall all night.

The operator then very obligingly offered to continue ringing my number and tell anyone if she got an answer, that I was outside. I am sure she rang that telephone for one-half an hour before anyone heard it. Finally it was answered and she gave the message. This isn't the first time the girls have helped me in many ways, and I should like to know if this operator is Miss Elsie Dunbar, who was so courteous to me once before. If it was, I think she deserves a medal. I really think she is the politest operator you have.

The operator in question was Miss Julia Sarris, who is a Warren girl, and to whom Mrs. Julia LeClair is just one of many subscribers and not known personally to her, as might sometimes be the case in the smaller exchanges.

This compliment is not the first one earned by Miss Sarris, but it is a case of "service with a personal punch."

Another Laurel for Pawtucket

FOLLOWING is the report of Supervisor Ethel F. Steere, and a letter to Manager Cronin three days later. This is the report:

At 10.50 A. M., a patron at station 3381 called several doctors. The operator (Florence Manning) called my attention to the connections, so I asked the patron if I could be of any assistance. Patron said a man had been electrocuted at the corner of Mineral Spring Avenue and Conant Street, and he needed the ambulance, a doctor, and the pulmotor. I immediately called the Blackstone Valley Gas and Electric Company for the pulmotor, and connected the patron while I called Dr. Ronne, the nearest doctor, who always volunteers to go on emergency calls. Then I called the police station asking them to send the ambulance to the corner of Mineral Spring Avenue and Conant Street, explaining that the patron would be there to direct them.

And here is the letter from L. E. Jackson of Pawtucket:

During the early part of this month an incident occurred which the writer thought you would be interested in knowing, as it showed that in an emergency your operators were "on the job."

An electrician, employed by the Blackstone Valley Gas & Electric Company, received a very severe shock while engaged in his work on one of the poles of the Company on Conant Street. It was necessary to call an ambulance and a physician, and a call was put in for the Memorial Hospital to send the ambulance, but the attendant informed the person who called that it would be necessary to call the Police Station. Before the person who called could get the police station number, the operator was on the wire and said, "Here is the police station."

Another call was placed for a nearby physician, who happened to be absent from his office, and immediately the supervisor came in on the line and said, "This is the supervisor. Do you wish a physician?" When the person who did the telephoning returned to the scene of the accident, both ambulance and physician were there, and the

man was being lowered from the pole. In a few moments

he was on his way to the hospital.

The writer has since learned that the injured man has recovered, and feels that the immediate and efficient service rendered by the operators certainly played a very material part in this man's recovery, and the operators should be commended for the capable manner in which they handled the calls.

First Aid Instruction

A NEW spoke has been added to the wheel of safety first. Mr. A. E. Morse has been appointed first aid instructor for the Rhode Island division.

Mr. Morse entered the employ of the Company in 1916 and has been engaged in various capacities in the Accounting and Plant Departments. Before assuming his present position, he was connected with the office of the division supervisor of motor

vehicles and supplies.

Class work started on December 5th, meetings being held at the Greene St. building in the evening. Other classes will be organized as fast as the first class completes the course, and passes the Red Cross examination. It is expected, from the interest shown at present time, that a large proportion of the employees will enter into the movement. Every employee should feel that it is a privilege to take this course and that the time spent will be amply repaid.

Good Work by West Wire Chief

N the afternoon of November 15th, the charging generator and ringing machines in the West office, at Providence, suddenly stopped, operating the power failure signal. The power is furnished from the Olneyville sub-station of the Narrangansett Electric Lighting Co., located very

nearly opposite to the telephone exchange.

Mr. W. C. Renfree, wire chief at West, on entering the station to investigate the cause of the failure of power, discovered the operator who at the time was the only man on duty, in a semiconscious condition, and his clothing on fire. He immediately smothered the blaze, put in a call for a doctor and applied first aid treatment, restoring the man to consciousness and greatly relieving his suffering. The doctor on arriving, commended Mr. Renfree highly, saying he had given just the right treatment. It appears the accident was caused by the man slipping off a ladder across the transformer framework and high tension wires so that all circuits were thrown out of service.

Plant Department Notes

J. A. BABCOCK, of the Division Plant accounting office, was married November 17th, to Miss Laura Gordon, formerly a supervisor in the Union exchange. The groom's associates in the Plant office presented him with a mahogany clock. After a short wedding trip Mr. and Mrs. Babcock

will take up their residence on Burgess Avenue, East Providence.

It is announced that J. Howard Serror, Angell office, is the proud father of a baby daughter.

The following men have qualified for advanced ratings:

George H. Coleman, lineman, construction department; F. R. Seaver, class "B" testman, Woonsocket; J. E. Preston, lineman, construction department; Wm. J. Bradley, cable splicer, first class; A. Landin, cable splicer, first class; R. Winpenny, cable splicer, first class; H. F. Thorpe, cable splicer; J. L. Trainor, cable splicer; J. A. Morrison, lineman; Adelard Angers, lineman; F. L. Danforth, sub-station repairman, grade B.

Barbed Wire-Fence Phones in South Dakota

THERE are still many rural homes that do not have telephones, and as at present economy in all lines is imperative, interest is reviving in the "barbed-wire system," which was more or less common in parts of the West twenty years ago.

In Carson County, S. D., the county agricultural agent has assisted farmers to install such a system at an average cost of material per farmer of less than \$20. Carson County is 87 miles long and very sparsely settled, although the agricultural lands are fenced. Standard telephone lines appeared to be too expensive, yet there was a great need for facilitating communication. The county agent furnished information regarding the cost of installing the line, using porcelain nail knobs for insulation, which cost about \$5 per mile. These knobs work satisfactorily when the barbed wire is tied to them with a short piece of wire.

In order to further reduce the cost, some farmers tried pieces of rubber, cut from automobile inner tubes as insulators. Pieces of the tubing one and one-half inches square were wound around the barbed wire and fastened to the post with staples. The county agent reports that this insulation is giving satisfaction, although, of course, the rub-

ber will deteriorate in time.

Telephone Connections with Performers

THE director of motion pictures couldn't get along without the telephone, says a Western press agent. The human voice will carry only a certain distance, so that when the "location" for a picture is out of doors or in a large building, either an amplifier or a phone has to be used for giving directions. One of the largest locations out of doors required the use of a special telephone system of five stations, covering a distance of six miles. The director was equipped with a telephone head-piece and "wired" his directions to other men at the different stations, similarly equipped, who transmitted his directions to the actors at greater distances.



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SOME PARTY!

Revenue Accounting Banquet

HY is a revenue accounting banquet like a fruit? Answer: Because it is a peach (with apologies to Vice-President Pierce).

The annual banquet of the Revenue Accounting department, bigger and better than ever, with delegations from Boston, Worcester, Springfield, Salem, Providence, and invited guests, was held at the Hotel Vendome, Boston, Mass., on the

evening of December 14, 1921.

Under the direction of Frank Mosses, toastmaster of the evening, there were no dull moments. Before sitting down to the table, "America" was sung by all and a toast was given to the president of the United States, Warren G. Harding, followed by the singing of "The Star Spangled Banner." After a few remarks by Toastmaster Frank Mosses, who spoke about the success of these "Get-Together Parties" and what they meant, the first speaker of the evening was introduced, Mr. R. P. Jones, auditor of receipts. With community singing and entertainment mixed in, the other speakers of the evening were Mr. Moore, general auditor; Mr. Feeney, assistant to the president; Mr. Pierce, vice-president, and President Jones. As the time was

limited, all the speakers spoke briefly but with a happy vein, and spoke of the pleasure that they had at these parties. The entertainment, under the direction of Mr. Clifford Lassen, chairman, was as follows: Macedonian male quartet, Messrs. Crawford, Anderson, Lassen and Cutler; violin solo, Mr. Frank Fransoza of Malden; soprano solo, Miss E. M. Chabot of Worcester; cornet solo, Miss Ellen McDonald of Brighton; baritone solo, Mr. Wm. Griffin of Dorchester. Miss Alice G. Gulliland, accompanist. After the banquet the dining hall was cleared and dancing was then enjoyed until midnight. The committees responsible for the successful time are as follows:

Regular Committee: J. B. Atkins, chairman; E. E. Buzzell, treasurer; F. Mosses, secretary; W. Farquhar, W. C. Fitzgerald, John J. O'Brien, Agnes L. O'Donnell, Helen Shannon, John Russell, Helen Bunker, Ralph Manning.

Entertainment Committee: Clifford W. Lassen, chairman; Wm. S. Griffin, Elizabeth Mahoney, Carl Luther, Helen McCabe, Ellen MacDonald, Clara Mogan, Lydia E. Baier, Edna Morris.

"Wisdom is knowing what to do; skill is knowing how to do it; and virtue is doing it."—David Starr Jordan.

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White Mountain Company News

ISS CONSTANCE E. BALL has returned to her desk in the Plant Department of the White Mountain Telephone and Telegraph Company after an illness of about four months, and wishes to thank her friends who were concerned in raising a purse of money for her benefit.

"Ask John Gadd how many visitors he and Director Gleason entertained at Warren during

Telephone Week."

On October 23d, the relationship of the White Mountain Telephone and Telegraph Company and the Connecticut Valley Telephone Company was made still closer by the marriage of Miss Grace Wilkins and Mr. Herbert W. Houghton. Mrs. Houghton has been an operator in the Plymouth exchange for six years, and Mr. Houghton is construction foreman for the Connecticut Valley Telephone Company. Their many friends in both companies presented them with a purse of money.

Miss Goodwin of Franconia substituted in the Plymouth, N. H., office, while Mrs. Houghton and

Mrs. Sargent were on their vacations.

Miss Osgood of the Campton exchange returned

to work after an absence of several weeks.

The employees of the White Mountain Telephone and Telegraph Co. maintained a booth at a bazaar held at Woodsville for the benefit of the Cottage Hospital. A miniature switchboard and operators set was installed by Foreman Boothroyd from which miscellaneous articles were sold by numbers. It was a novel idea and netted the bazaar a tidy

On November 7th the night operator at Plymouth, N. H., Miss Gladys Whitney, was married to Mr. James Merry.

An Interested Subscriber

DAINTY knock at an exchange door, answered by the supervisor, revealed a small boy, about six years of age, with a rather important manner. Upon being questioned as to what he wished, the following conversation took place:

SMALL Boy: "Why didn't you answer our

telephone?"

SUPERVISOR: "Whose telephone?" SMALL Boy: "My telephone." SUPERVISOR: "Who are you?" SMALL BOY: "I'm 'Holly' Jackson."

Supervisor (remembering having had the boy

on the line): "I had you on the line twice a few There isn't any trouble that I moments ago. know of."

SMAIL Boy (quite indignantly): "Well, alright.

Thank you."

After the little fellow had gone the supervisor called his home and inquired of his mother if she had had any trouble getting Central. She said that she had not and after being told of the visit and complaint made by her son, she laughed and said: "Hollister has asked me several times what 'Central' is like, if she is more than a voice and if she has a body and legs. I told him I didn't know, (to avoid his endless questions), and that he would have to go over to the office sometime and see. So I suppose that this is the way he chose to satisfy his curiosity."

Surprise for Norway Girls

THE young ladies employed at the Norway exchange entertained at double celebration and surprise showers recently. Their guests of honor were Mrs. Edward A Luck (Irene Locke) and Mrs. Arthur Lapham (Sylvia Taylor) both of



MRS. ARTHUR LAPHAM

whom stole a march on their friends and were married quietly withannouncement. Mrs. Luck was married a week earlier than they supposed the date had been set for and Mrs. Lapham did not even notify them that she was to be married at all and not until the following morning were they aware of the fact. Under these circumstances the showers were tendered at this later date. Both young

ladies were taken completely by surprise as they supposed they were to attend a shower for the other. The retiring room at the exchange was the place of the gathering and this room was transformed into a dainty living room with rugs and plants, and many bouquets. Kewpies suspended from the center chandelier announced that this was an affair of the heart.



A scene on Broadway, New York, in 1890, showing the density of overhead wires



The same scene after the overhead wires were replaced by underground cables

Improvements

The history of the telephone is a record of constant improvement. Only by numerous inventions and ceaseless research for new and better ways has the present standard been reached.

Two-score years ago the telephone could hardly carry the human voice across a city. Now it carries it distinctly across this great continent. The once familiar network of overhead wires in large cities has been replaced by systems of underground cables, each cable containing thousands of slender, sensitive wires.

Switchboards, once primitive devices, called upon to handle only a few connections and limited in their workings, have now become great and precise

mechanisms through which the volume and complexity of telephone traffic is handled with mechanical perfection.

With the continued growth in the number of telephone users, there is a continued increase in the problems of speed, accuracy and speech transmission.

These are the problems forever before the scientists and engineers of the Bell System; and the solution of these problems, in advance of necessity, is the objective of this great body of specially trained experts.

The Bell System will continue the improvements necessary to maintain its standard of service, which is the best and cheapest telephone service in the world.



"BELL SYSTEM"

AMERICAN TELEPHONE AND TELEGRAPH COMPANY

AND ASSOCIATED COMPANIES

One Policy, One System, Universal Service, and all directed toward Better Service